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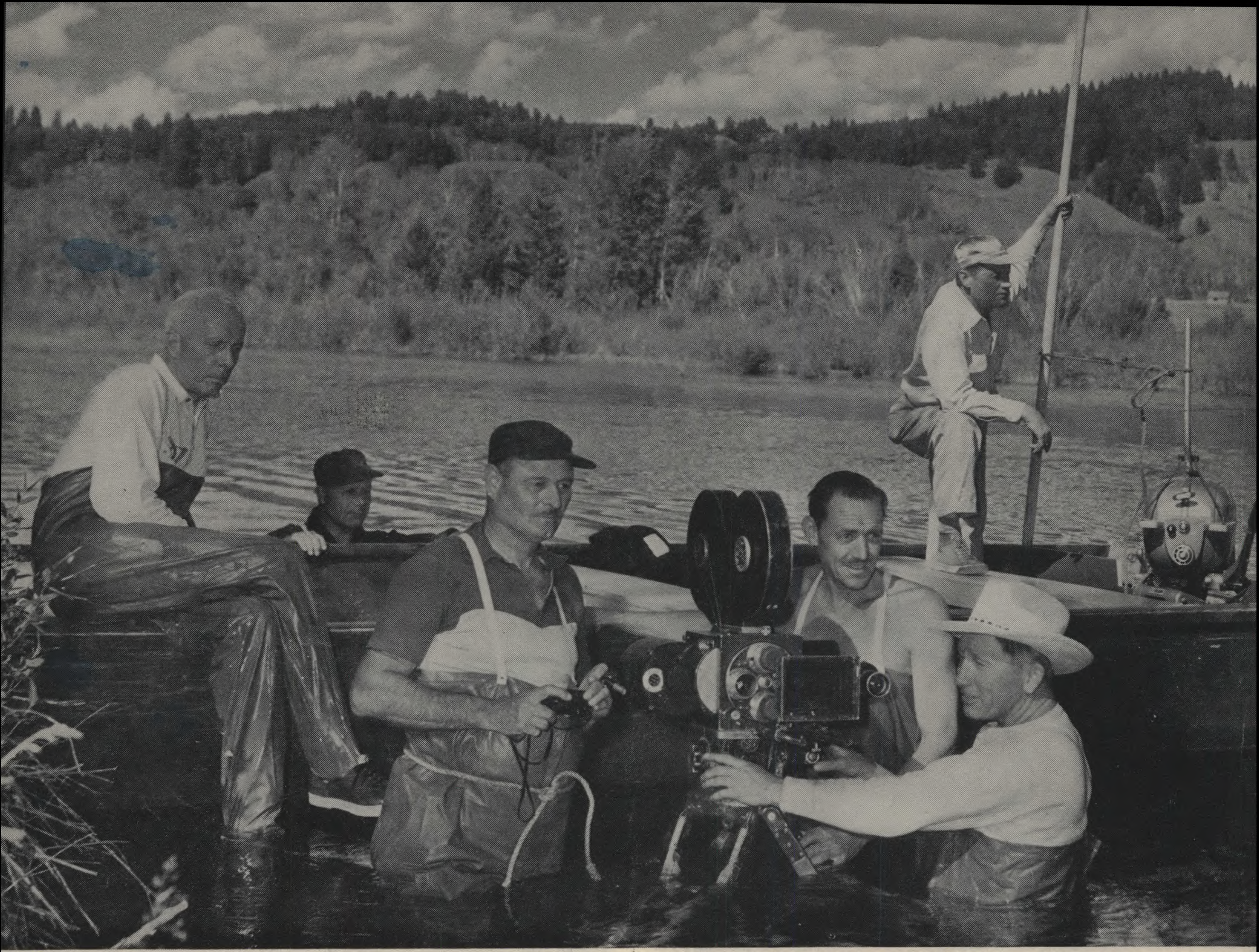
William Skall, ASC, directs the photography for MGM's "Everything I Have Is Yours," featuring Marge and Gower Champion.

THIS MONTH

- A New TV Filming Method
- Stereo Movies Without Spectacles
- Shooting Goldwyn's 4-Million Dollar Movie

JULY
1952



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IN DEEP ON LOCATION...

as camera crew shoots "The Big Sky" on Du Pont "Superior" 2

"The Big Sky"—a Winchester Pictures production by Howard Hawks for RKO Radio, starring Kirk Douglas—is another outstanding picture made on Du Pont Motion Picture Film.

Producer-director Howard Hawks (left) and his RKO Radio camera crew, headed by Russell Harlan, A. S. C., have donned waders to set up a location scene in Wyoming's treacherous Snake River . . . for a "take" on Du Pont "Superior" 2.

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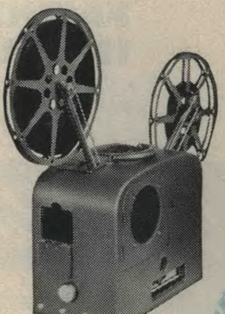

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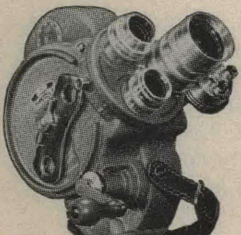

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Telephone: GRanite 2135

VOL. 33 **JULY • 1952** **NO. 7**

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ON THE COVER

THE CAMERA'S ROLLING on a closeup of Marge and Gower Champion for MGM's "Everything I Have Is Yours," in which this famed dancing duo gets top billing. Directing the photography is William V. Skall, A.S.C., (second from right in background). In front of Skall is Robert Z. Leonard, director of the production. Recording the scene is a crane-mounted Technicolor camera.
—*Photo by Frank Shugrue.*

AMERICAN CINEMATOGRAPHER, established 1920, is published monthly by the A. S. C. Agency, Inc., 1782 N. Orange Dr., Hollywood 28, Calif. Entered as second class matter Nov. 18, 1937, at the postoffice at Los Angeles, Calif., under act of March 3, 1879. SUBSCRIPTIONS: United States and Pan-American Union, $3.00 per year; Canada, $3.00 per year; Foreign, $4.00. Single copies, 25 cents; back numbers, 30 cents; foreign single copies, 35 cents; back numbers, 40 cents. Advertising rates on application. Copyright 1952 by A. S. C. Agency, Inc.

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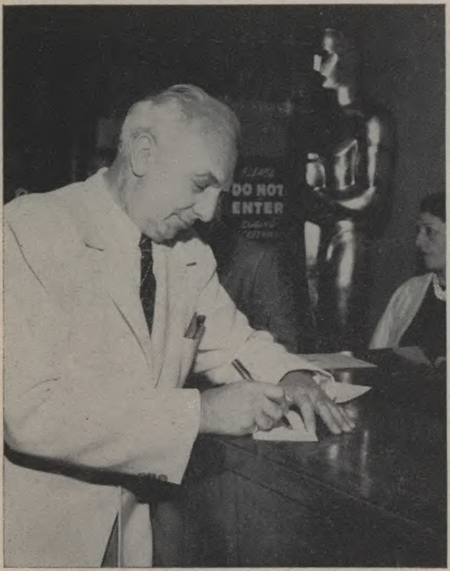
Hollywood Bulletin Board



HAL MOHR, A.S.C., member of the Board of Governors of the Academy of Motion Picture Arts and Sciences and chairman of the Forum committee writes a question for submission to the panel that participated in the forum discussion of the Bartlett-Foster production, "Navajo," following a screening at the Academy Theatre.

ALAN M. GUNDELFINGER and **FERDINAND L. EICH** were elected associate members of the American Society of Cinematographers last month. Gundlefinger is an executive with Cinecolor Corporation and Eich is with Paramount Pictures' film laboratory. Both men were formally presented to the A.S.C. membership at the Society's monthly meeting June 30th.

•

JACK ROSE, A.S.C., is currently preparing his American Cinematographer Handbook for its eighth printing. Demand for book continues from industry technicians in every country in the world.

•

HARRY STRADLING, A.S.C., following the windup of filming "Hans Christian Anderson" for Goldwyn, started packing for a three-month's vacation in Europe. Howard Hughes persuaded him to defer trip long enough to direct the photography of RKO's 'The Murder," in return for which Hughes promised Stradling he'd foot his European vacation bill and pay his plane fare both ways!

•

LEN ROOS, A.S.C., president of Kinevox, Inc., has designed a new mechanical-optical scene slate which fits on camera before lens, enables camera assistant to record slate data at beginning of each take in a matter of seconds. Prototype was installed on Mitchell camera used by John Boyle, who's shooting TV films for Gross-Krasne Productions, at General Service Studios. Roos will put slate into general production July 1st.

•

PHIL TANNURA, A.S.C., has presented to the Ford Foundation a unique motion picture project having to do with making permanent records on film of important places and events in history of U.S. for benefit of future generations. Plan has been accepted for study by Foundation committee. When finally okayed, project will open a production undertaking by Tannura of several years' duration.

OLLIE COMSTEDT, A.S.C., who was associate producer and director of photography on "A Glassful of History," chats with Burgess Meredith, star of the picture, which was produced for the Puerto Rican Rum Institute.

RAY FERNSTROM, A.S.C., who recently completed photographic assignment in Hollywood for Reid H. Ray Industries, St. Paul, Minnesota, has been signed to term contract by the company and will begin his new assignment at the St. Paul studios July 1st. He goes to Florida later to shoot a series of pictures in Ansco Color for Reid Ray for theatre and TV presentation.

•

HARRY J. WILD, A.S.C., becomes Jane Russel's private and exclusive cameraman, following re-optioning of Wild by Howard Hughes at RKO. Henceforth, Wild will not be available for assignments other than films starring Miss Russell, and will go to other studios to photograph her whenever she is loaned.

JOHN W. BOYLE, A.S.C. and **HAL MOHR, A.S.C.**, have been elected by the Academy of Motion Picture Arts and Sciences to serve on two of the five committees recently appointed for 1952 by Academy president Charles Brackett. Boyle will serve on the Awards Rules and Planning Committee; Mohr on the Forum Committee.

•

TED TETZLAFF, A.S.C., returned to Hollywood last month from London where he directed "Time Bomb" for Richard Goldstone.

•

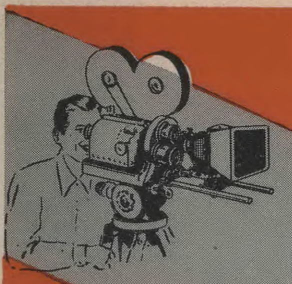
BING CROSBY ENTERPRISES reportedly will have its sight-and-sound electronic tape system ready for practical use within 30 days. Initial public demonstration is tentatively scheduled for July 15th.

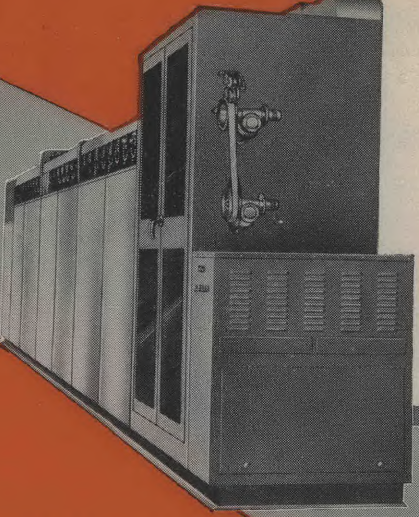
•

DUPONT, who makes a large percentage of the film used in Hollywood for theatrical and TV films, has been commended by the American Society of Cinematographers for recognition given by the Company on its national radio program, "Cavalcade of America," to the industry's cameramen. Harry Stradling, A.S.C., was cited on the May 27th pro-

(Continued on Page 322)

NOTHING'S TOO GOOD these days for MGM cinematographer William Mellor, A.S.C., following his winning two photographic awards—an Oscar for "A Place In The Sun," and a Reno Silver Spurs Award for MGM's "Across The Wide Missouri." Here a makeup Miss grooms Bill's locks—just for a gag—in between scenes for Metro's "The Naked Spur."





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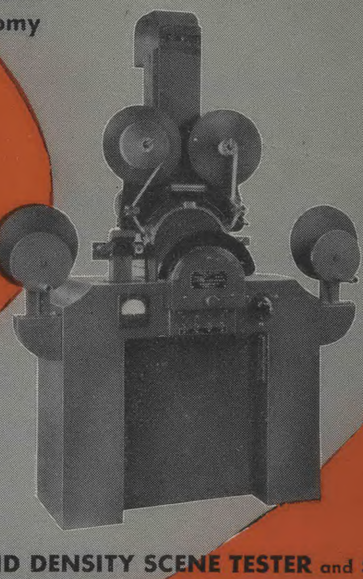

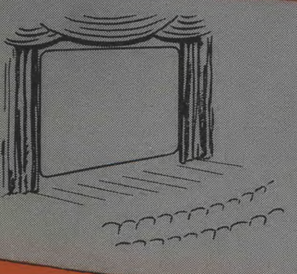

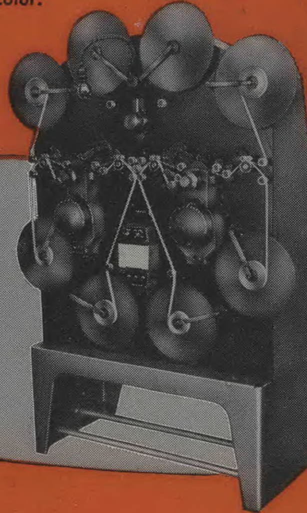

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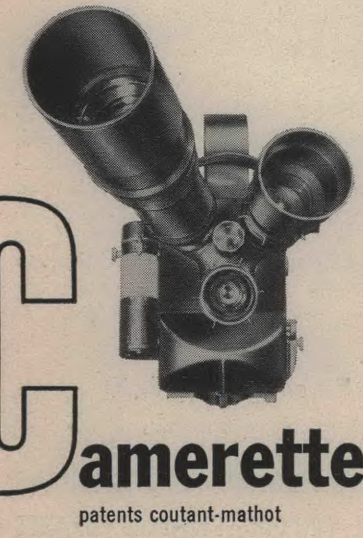

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Cinematography REVIEWS

Of Pictures Previewed in Hollywood Last Month

THE HAPPY TIME—*Photographed in black-and-white by Charles Lawton, Jr., A.S.C. Produced by Stanley Kramer for Columbia Pictures Corp. Directed by Richard Fleischer.*

"The Happy Time" is the sprightly story of "the coming of age" of a teenage boy—his first reaching for maturity on everything from an intellectual plane to the first sex manifestations. In "Happy Time," everybody loves somebody. And it is evident that cinematographer Lawton loved this assignment, for he has given the picture a rare pictorial charm, skillfully interpreting the atmosphere the production designer had in mind when planning the sets. The various changing moods, too, are immeasurably helped by Lawton's skillful set lighting and choice of camera angles.

This is particularly marked in the comparison of the lighting in the drab interior of the home of the bibulous Kurt Kasnar as compared with the cheery atmosphere in the home of his brother, Charles Boyer. Here are excellent studies in effective mood lighting, subtle, but powerful in its ability to "draw" the spectator into the very story itself.

Here, too, one may witness the effectiveness of Lawton's technique on story-enhancing camera angles, as when he places his camera at table level for the scenes of the family at dinner, giving you an intimate view of the action as if seated at the table yourself.

On his exteriors, Lawton adds just enough fill and booster light to round out his players, gain effective separation and otherwise give the overall scene an interesting pictorial effect.

It isn't often that Lawton—who has shot everything at Columbia from "sagebrushers" to top-grossers—gets a picture like this one that he can "sink his teeth in," but when he does, he demonstrates a versatility that someday will net him an Academy Award.

LYDIA BAILEY—*Photographed in Technicolor by Harry Jackson, A.S.C. Produced by Jules Schermer for 20th Century-Fox. Directed by Jean Negulesco.*

A fast adventure yarn, adapted from Kenneth Robert's novel of the same name, "Lydia Bailey" is set against the story of Haiti's struggle for independence from Napoleonic France in 1802, at a time when no white man was safe in Haiti.

Technically, this is one of the best color productions to come out of Hollywood in a long time. A portion of the picture was actually photographed in Haiti, which gives it authentic atmosphere and added interest. But it is the reproduction of Haitian scenes on the studio lot and sound stage that are most impressive, especially when given meticulous lighting by Jackson.

There is considerable low-key footage—night scenes, the chase scenes in the jungle, and the city burning at night—and here Jackson gives the scenes the utmost authenticity through meticulous exposure and proper use of fill light. These are scenes recommended for study by students of cinematography.

The travel and trucking shots are subtly done, and are used most effectively to point up suspense in several instances.

The two sequences deserving special mention for photographic excellence are the burning of the plantation home and the voodoo dancing scenes.

IVANHOE—*Photographed in Technicolor by Freddie Young, A.S.C., B.S.C. Produced in England by Pandro S. Berman for Metro-Goldwyn-Mayer. Directed by Richard Thorpe.*

With Robert Taylor, Elizabeth Taylor, Joan Fontaine, George Sanders and Emlyn Williams heading the cast of many thousands, MGM presents in "Ivanhoe" a great motion picture, based on the literary masterpiece by Sir Walter Scott. Here is a tale of high adventure and exciting romance given tremendous scope by a truly skillful cinematographer and his camera. The production is replete with scenes so vast in grandure and action that only the most skillful planning and execution of the camera work could encompass it all and bring it to the screen with the necessary dramatic emphasis.

Cinematographer Young demonstrates a rare skill for Technicolor lighting, and there are countless scenes which demonstrate his ability to deliver natural color and skin tones in admittedly difficult lighting conditions.

Perhaps the most interesting feature of the picture, from point of lighting, is the extraordinary use of projected colored light into scenes to emphasize mood, or to give a scene pictorial and color balance not otherwise possible. As a result, scene after scene equals in pictorial grandeur some of the best of the rare canvases of the old master painters. Here, Freddie Young demonstrates the real technique of painting with light.

The engineering of the travelling camera shots on this production must have been tremendous, and here Young's camera crew must come in for a fair share of honors.

Some of the most spectacular scenes from the point of photography as well as action are the jousting shots, the scenes of warriors storming the citadel walls, and the close shots of the storms of arrows striking the gate under seige.

Painstakenly staged, every shot is a masterpiece pictorially. Here, unquestionably, is a solid contender in next year's Academy Awards competition.

PARK ROW—*Photographed in black-and-white by Jack Russell, A.S.C. Produced by Samuel Fuller for United Artists. Directed by Samuel Fuller.*

"Park Row" is the story of rival newspapers laid in the early "1900's" on Park Row of New York City. Gene Evans, who starred in Fuller's "Steel Helmet," is also the star of this picture.

Most of the action takes place at night, presumably because so much of a newspaper man's activities in those days occurred evenings and when most of the papers were "morning editions." Also, the low key lighting necessary for these scenes served to point up the skullduggery that seems continually to take place.

All in all, cinematographer Russell has his camera grinding on night shots about 90% of the time. Thus the picture offers an excellent, sustained study of this type lighting for black-and-white photography.

The night exteriors are shot at night—no day for night shots—and here Russell's lighting is most effective.

SALLY AND SAINT ANNE—*Photographed in black-and-white by Irving Glassberg, A.S.C. Produced by Leonard Goldstein for Universal International Pictures. Directed by Rudy Mate.*

Ann Blyth stars in this whimsical story about an 11-year old schoolgirl who prays to St. Ann for the needs of her friends and family. Ann grows to womanhood with St. Ann still granting her requests for help for others. In between, she helps defeat a conniving neighbor seeking to take her grandfather's property, and wins the heart of the neighbor boy who "remembered her when."

Glassberg would probably call this an ordinary, routine photographic job; yet it has its interesting moments for the student of cinematography. Perhaps the most interesting is the way in which Glassberg uses his camera to aid the

(Continued on Page 322)

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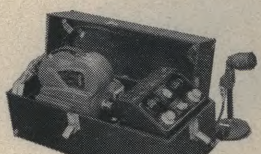

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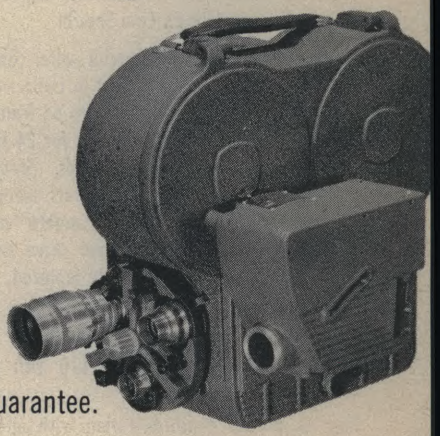

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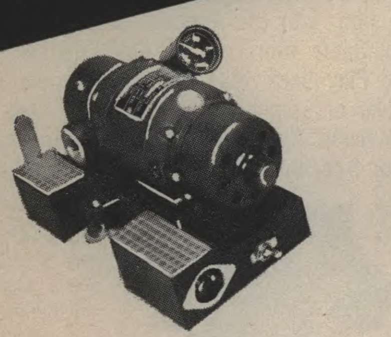

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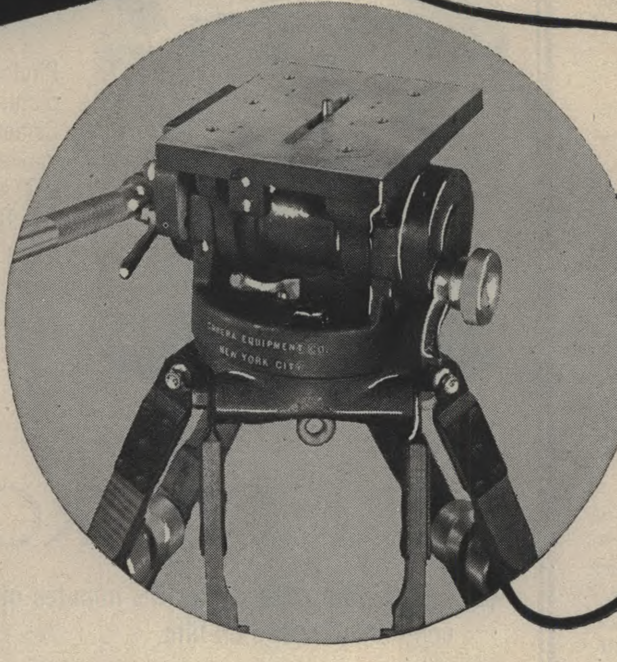

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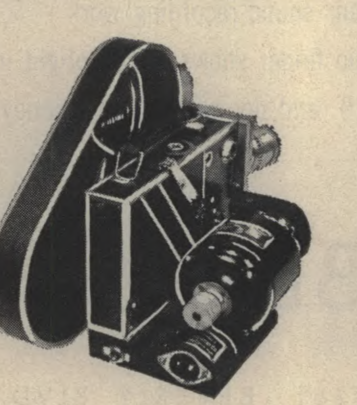

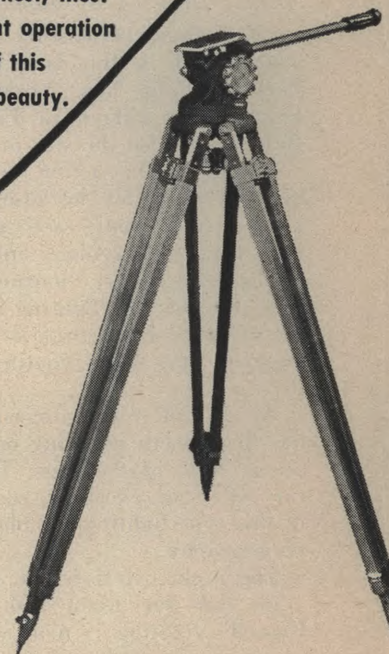

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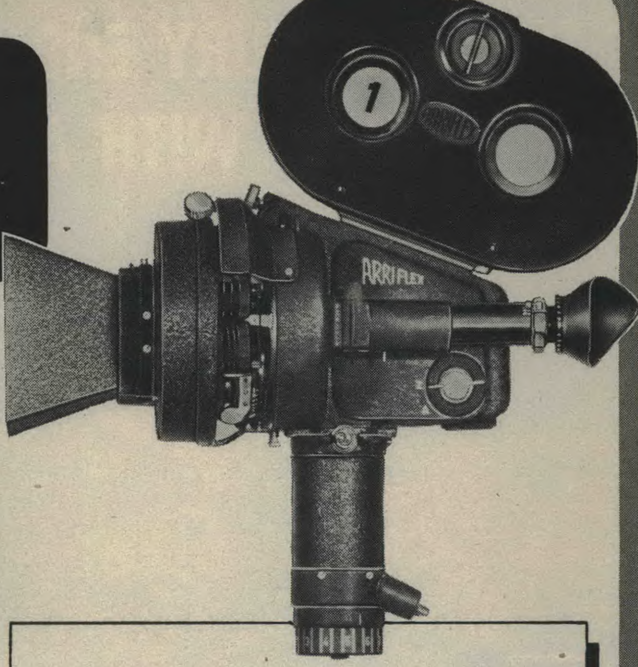

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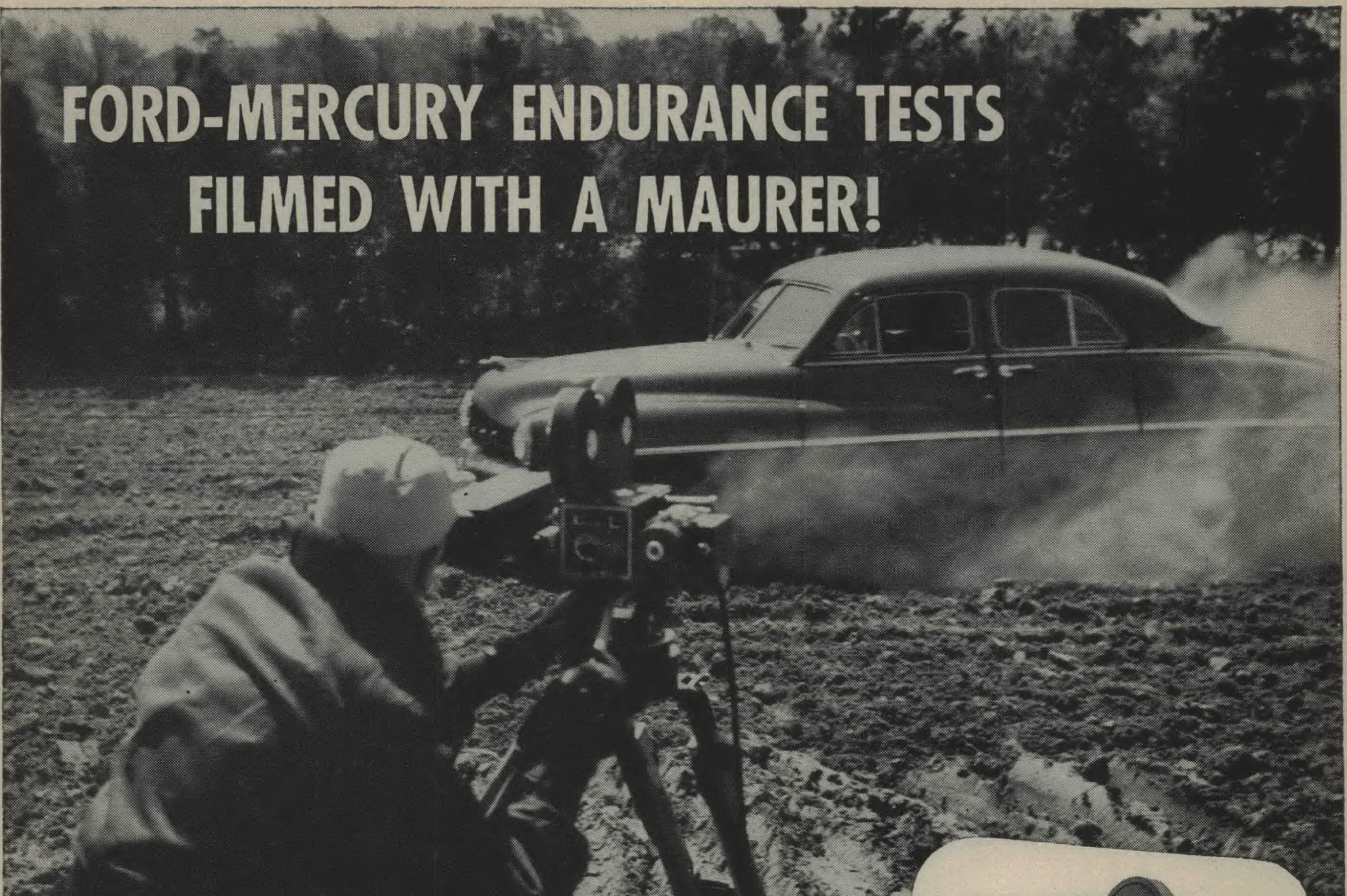

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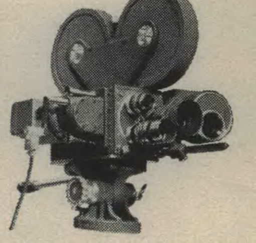

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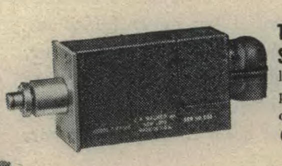

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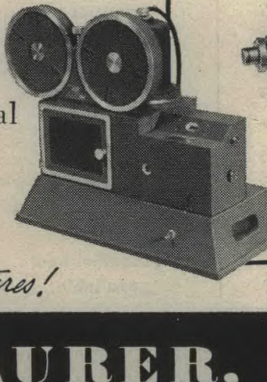

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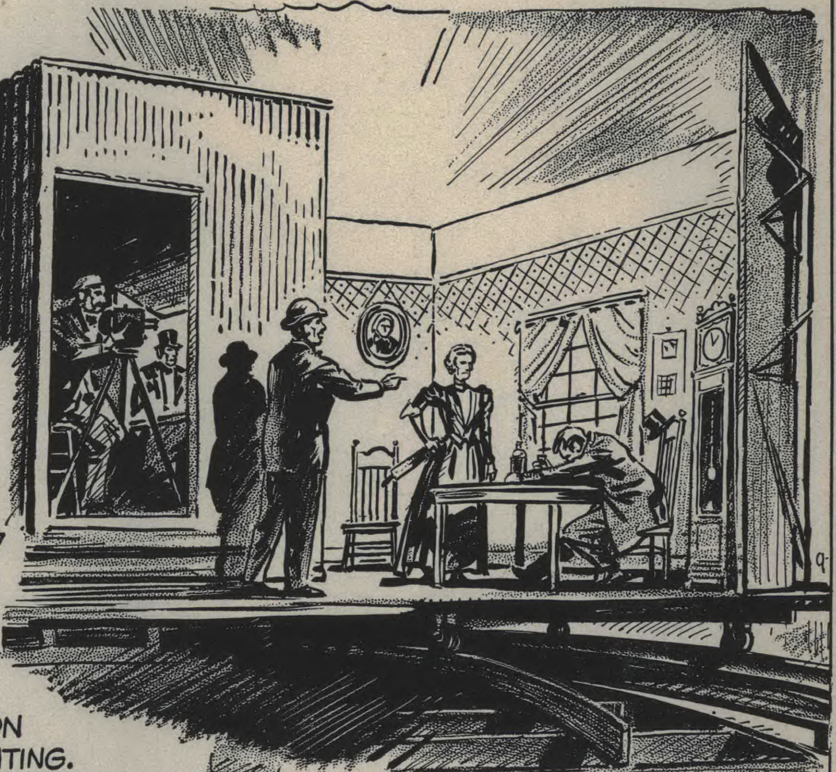

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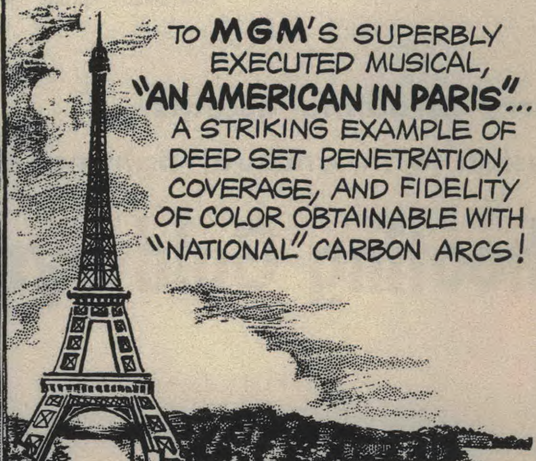

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THE BALLETS are the highlights in Samuel Goldwyn's "Hans Christian Anderson"; display some of the most unique lighting and photography ever seen in a Technicolor production.

Harry Stradling accents illusion with unusual lighting in

Shooting Goldwyn's 4-Million Dollar Movie

By RALPH LAWTON

PHANTASY AND ILLUSION went hand in hand in the creation of Samuel Goldwyn's exciting new production, "Hans Christian Andersen," in which the director of photography, Harry Stradling, ASC, had an important hand in the pictorial planning.

Here was to be Goldwyn's supreme cinematic effort—a super production, a labor of love—in which the sky was the proverbial limit for the production budget. Not that extravagance was tolerated, but Goldwyn was willing to spare nothing in an effort to bring to the screen the finest ballet numbers ever presented in motion pictures.

For one sequence alone, Goldwyn had built a replica of practically the entire main square of old Copenhagen. This

set, which cost around $200,000, occupied every available inch of a huge 30,000 square foot sound stage—is easily one of the most pretentious sets ever constructed, and posed many unique lighting problems.

When Stradling required a staff of assistants to do nothing else but make and install the hundreds of special filter gelatins required on the set lighting lamps, Goldwyn readily okayed the cost — $30,000. The picture easily cost the $4,000,000 for which it was originally budgeted.

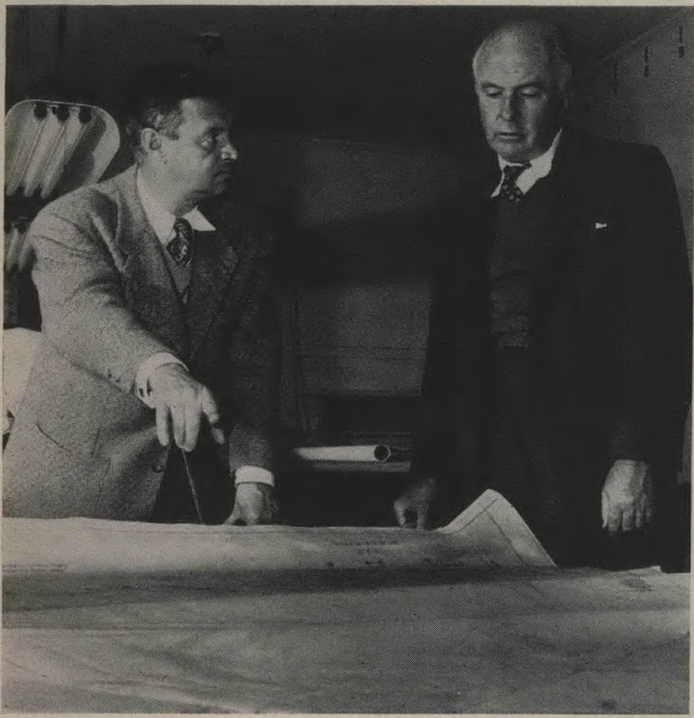
Obviously, here was one production where the director of photography could work unhampered by costs and production time limits, and this fact made possible the really fine artistic touches which mark the photography.

Because so much of the production's unique pictorial effect would rest with the director of photography, Stradling sat in on nearly every major planning conference once the production was set. Miniatures were constructed of all key sets for the production and these afforded Stradling opportunity to visualize and plan his lighting long before the sets were erected. Earlier, he consulted with art director Richard Day in the planning of these sets on paper, at which time all the requirements for placing the set lighting equipment were carefully considered and provided for. "This saved us many hours of valuable time later when it came time to rig the sets," said Stradling.

Every scene for the picture, except that of the flying kite, was shot indoors on the sound stage. This immediately posed the problem of establishing a lighting scheme for interiors different from that for the "indoor" exteriors—establishing a key which would govern the lighting of subsequent scenes in each category.

SAMUEL GOLDWYN (right foreground) studies a set miniature designed by artist Clave, opposite him. Behind set, from left to right, are art director Day, choreographer Roland Petit, director Vidor, and cinematographer Stradling.

There are many tricks that are employed in lighting exteriors filmed indoors in order to give them the authenticity of the real outdoors. Only through years of study and use of set lighting equipment is it possible for the director of photography to successfully attain this illusion. An example of just one unique pictorial touch given by Stradling to one scene was that of the vast set representing the road to Copenhagen, which occupied the entire floor of stage 5. Here, the predominant tone was green—green trees, foliage, grass, etc. In order to get sufficient separation between the green areas, Stradling had a fine mist sprayed on the green foliage. This added a myriad of highlights which enhanced separation and added immeasurably to the overall pictorial effect.



LONG BEFORE a set was built for the picture, Stradling and art director Richard Day discussed lighting and camera angles, planned sets for the best possible advantage for the photographer.

Again, because a scene having a pool prominently in the foreground was photographed indoors on the sound stage, it was Stradling's suggestion of adding blue coloring to the water in the pool that resulted in the scene photographing more realistically, with the pool appearing to reflect the natural blue color of the sky. But coloring the water was not the only problem; it was also necessary to place the lights with special care to produce the illusion of daylight.

From the very beginning, illusion became the keynote of the photography — a grand illusion that would enchant the audience and captivate it with pictorial settings in which Danny Kaye, Farley Granger, Jeanmaire and others enact the charming story.

The challenge for Stradling was to effectively light and photograph simple sets for the ballet numbers, such as the one composed of only a huge backdrop that came alive when colored lights played upon it, or a bare stage floor over which festoons of delicately tinted strips of ragged gauze hung from the ceiling, representing an underwater scene. In the stark illumination of the stage worklights, such scenes were drab and lifeless; but when Stradling painted these sets with delicately filtered light, the transformation was exciting. And when Jeanmaire, the petite French ballerina, and her troupe danced about the stage, the whole effect became a Technicolor dream scene.

(Continued on Page 308)

◀

HARRY STRADLING (right) and director Charles Vidor discuss a proposed camera angle for a ballet scene on the Goldwyn stage.

We Filmed 'Kangaroo' Entirely In Australia

Using limited equipment, this color production was filmed with Monopack almost entirely in natural locales, some 1200 miles from Sydney.

By CHARLES G. CLARKE, ASC

REFLECTORS were used for booster lighting in shooting almost all exteriors.

TWENTIETH CENTURY-FOX'S "Kangaroo," now in general release throughout the United States, is the first Technicolor feature production to be made in Australia by a Hollywood studio. While filming in any distant location invariably presents special problems, Australia offered many which we never before had encountered.

"Kangaroo" was photographed with Technicolor Monopack film, sensitized for daylight. This made it necessary to have arc lights for interiors and for booster fill light. No arc equipment suitable for color photography was available in Sydney. It was therefore necessary for us to ship all our lights, generators and attendant equipment to Australia many weeks in advance of the arrival of our key Hollywood personnel. The Ealing Studio at Pagewood, a suburb of Sydney, was leased by Fox and became our production headquarters.

As soon as our gear arrived and was uncrated at Ealing, a schooling program was begun for the Australian studio workers who were to assist us. Here they were trained in the operation of arc lights and sound apparatus, and familiarized with our grip equipment.

Very soon after our arrival it became evident that our script should be altered to take in as much of Australia settings and color as possible. While Mr. Milestone, the director, and Mr. Kleiner, the writer were revamping the script, art director Mark Lee Kirk and myself explored Sydney, and made trips into the back country of central Australia in search of locations.

Here we made stills of possible sites, and these were submitted and studied in a conference held with Mr. Milestone and members of the production department. Because locale of the story was that of an Australian cattle station (ranch) under drought conditions, a naturally dry area was called for in the script, which stipulated: "It should have a barren mountain range for a background for pictorial effect, and dry watercourses along which are scattered ancient eucalyptus trees that have known better seasons." We searched hundreds of miles on both sides of the Flinders

DIRECTOR of photography Charles G. Clarke (wearing hat in right foreground) prepares to shoot tribal dance of band of Australian aborigines on desert locale for 20th Century-Fox's "Kangaroo."

FILMING the start of the roaring prairie brush fire—a highlight of the story.

PHOTOGRAPHING in natural locales instead of sets posed many problems for camera crew.

SHOOTING interiors in Australian ranch house, lighting was difficult because of cramped quarters.

Range looking for such a spot. Of course accessibility to transportation and availability to human wants and supplies had to be considered also. Hence it came about that a site was selected on a foothill bench about seven miles east of Port Augusta. This town is at the head of Spencer Gulf in south-central Australia.

Housing is a big problem in Australia. The hotel system is reportedly owned and controlled by the brewery interests throughout the land, and the aim of local hostelries seems to be to furnish a few primitive rooms as an adjunct to the bar. Because of socialized government and a thirty-five hour working week, everything is in short supply; therefore little new building is being done. For these reasons there is little incentive for tourist travel with the result that Australia remains the least known and understood of the great nations.

To move a film troupe of some ninety people into a small Australian town was therefore quite an undertaking. The townspeople were quite thrilled with the prospect of having a movie company with them, and lent every assistance and courtesy to make our venture a pleasure. If "Kangaroo" fails to come up to their expectations we will all feel that we have let them down. Fortunately the Governor of the state of South Australia, where we proposed to work, is a very progressive man. He appreciated the great economic value to his country of an expensive motion picture being filmed there.

Governor Paddleford also gave us every assistance; and indeed without it the film simply could not have been made. It so happened that housing facilities were soon to be built for an electric power project near Port Augusta. The Governor purposely moved this building program ahead so that it would become available for our use. He also made it possible for us to obtain the construction materials necessary for our sets.

Our "Station House" set was unusual in that we did both exteriors and interiors on the site. It consisted of a large, complete four-walled ranch-house plus all the out-buildings, barns, corrals, windmills, etc. The house was finished in detail inside, and completely furnished. The only difference was the extra heavy beams necessary to support the heavy lamps used for lighting. Some of the walls were removable and the construction was engineered so that the roof would remain intact when certain walls were taken out.

While this building was going on, we started filming in Sydney. The "flop house" set had been erected on a stage of the Ealing Studio. This was the only studio-built set in the entire production. All other interiors were shot in actual buildings. For example, the "gambling house" was an old residence in Sydney known as the Elizabeth Bay House, and was occupied by roomers while we worked there. It was quite a problem to get our lights in and to find a place to put them. Keeping the cables out of camera range was a constant challenge, and the electrical crew under Charles Wise did a heroic job.

CHARLES G. CLARKE, ASC, *has been a director of photography at 20th Century-Fox studios for more than fifteen years. Possessing unusual ability for organizing and executing the photography of films made on overseas locales, Clarke has directed the photography of all or part of such recent Fox productions as "The Big Lift" (Germany), "Kangaroo" (Australia), "Snows of Kilimanjaro" (Africa), and "On The Riviera" (France).*

Currently serving his third term as president of the American Society of Cinematographers, Clarke's next assignment for Fox will be "Sixty Saddles For Gobi," which will be filmed at the studio and in nearby locations.

Working in such practical sets meant that they had to be rigged every morning and completely struck each night. Location work meant that each member of the crew had to be ingenious, and cooperative with his co-workers. The "Kangaroo" company was fortunate in having a crew with wonderful spirit and a fine sense of cooperation. Our Australian staff cheerfully worked hard and long with us to make the picture a success.

The night exteriors were filmed in the daytime outside of this same building. Some of the long shots were made at dusk while others having more restricted area were filmed under diffusers to cut down the strong overhead daylight.

Actually no more lamps than normally used for booster lighting were shipped to us from Hollywood. So, later when Mr. Milestone had written into the script a number of additional night exterior scenes for the opening of the picture, we agreed that they could be made if we filmed them at twilight—a few each evening. Here I used what few lights I had plus a few incandescent units from Ealing studio. These were placed so as to add highlights for the street lamp and window effects. By balancing this illumination with the remaining twilight, the night scenes were successfully photographed. The dock and

(Continued on Page 315)

Carbon Arcs For Motion Picture Set Lighting

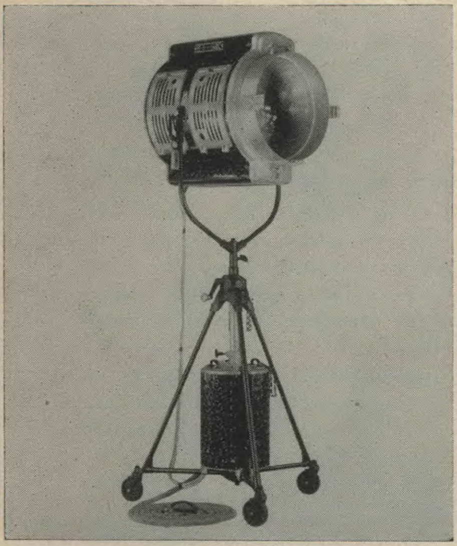
— Part 2 —

By HENRY B. SELLWOOD

Editor, International Projectionist

IN PART ONE of this discussion, which appeared in our June issue, the author, using text and charts, compared the characteristics of carbon arc and incandescent studio lamps and the performance of each type lamp for equivalent photographic effect with various types of color film — placing special emphasis on the penetrating power of carbon arcs.—EDITOR.

COVERING POWER is another vitally important factor in studio set lighting. This term applies to the area of a set which can be lighted to a given intensity with a single lamp, and may be defined in terms of the diameter of the spot over which this intensity can be obtained. The diameter of the spot, of course, is dependent upon the *projection throw* and the *beam spread*.



MOLE-RICHARDSON Type 170 Arc Spotlamp, showing 24-inch Fresnel-type lens and series resistance unit. This lamp uses a 16mm rotating H.I. studio positive carbon at 140-180 amperes.

In this important respect the carbon arc exhibits marked superiority over any other light source, because of the high lumen content of the light beam it produces.

When the term "boundry light" is used in motion picture photography, it is taken to mean the point where the projected light intensity is 10% of that at the center of the set. However, not infrequently more than 10% of the maximum center intensity may be required in certain cases. Thus the lamp performance chart (Fig. 3, June issue) shows covering power values for boundry intensities of 50% of the center set value.

The foregoing definition of covering power is applicable for the figures given in Fig. 3 for the lamps and film conditions considered previously. It is apparent from this same table of figures that the carbon arc lamps at minimum spot can effectively cover set widths ranging from 10 to 40 feet on the basis of a 10% boundary intensity—which coverage is in sharp contrast to that of inkies which are limited to about one-half of this. For a 50% boundary light intensity, the carbon arc at minimum spot coverage is about one-half to two-thirds as much as it is for the 10% level.

Much greater covering power is obtainable with the carbon arc at full flood than at the minimum spot position, because of the greater lumen output at the flood position. Also, the covering powers of the 50% and the 10% boundary intensities are more nearly identical at full flood, the result of a more uniform distribution of light across the wider beams.

Set areas which can be illuminated to a given intensity will naturally depend upon the square of the corresponding beam diameters shown in Fig. 3. It is not possible to specify these areas even in a general way, since the angle at which the light beam strikes a given set is dependent upon the particular effect desired.

Figure A is a scale diagram of data from Figs. 1 and 3 (May issue) showing the penetrating power, beam diameter and beam spread of the various carbon arc and inkie lights. This graphically portrays the outstanding ability of carbon arc lamps to project over long distances and to cover large set areas.

The formation and structure of shadows formed by a light source, as shown in Fig. B, is a subject for unending exploration by lighting technicians. That degree of sharpness which is cast by the various lamps is determined by the source size and is measured by the apparent angle subtended by the *effective portion* of the light source at the object producing the shadow.

As is evident from Fig. B, the area over which the shadow varies from complete darkness to full-light intensity will be smaller and the shadow sharper when the angular extent of the light source (θ) is as small as possible.

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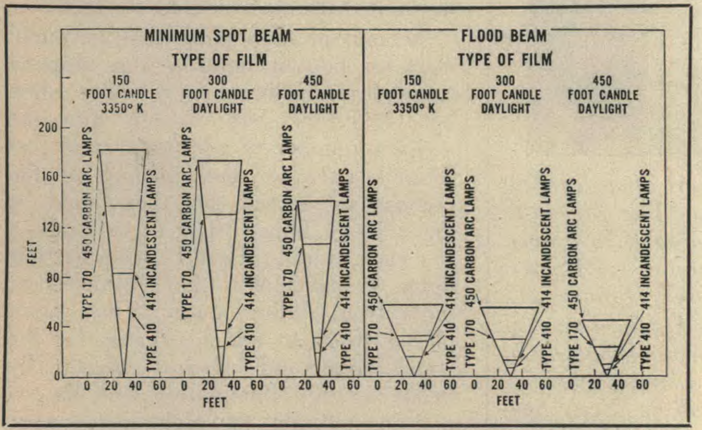

FIG. A—Scale diagram showing projection distance, beam spread and beam diameter for equivalent photographic effect at center of beam of arc and incandescent lighting units.

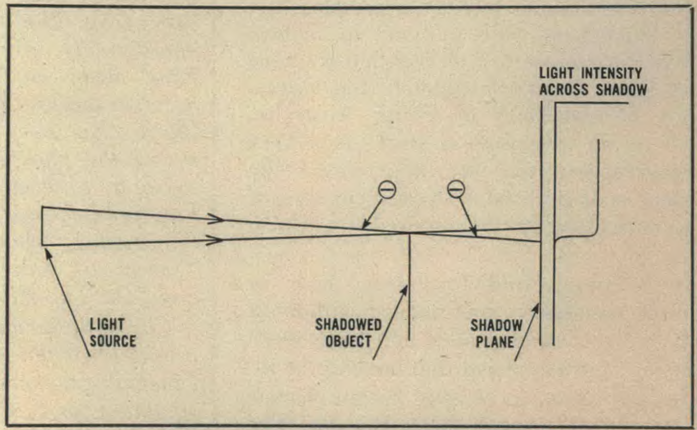

FIG. B—Showing how the sharpness of shadows depends on angle subtended by the light source at the shadowed object. The formation and structure of shadows becomes more understandable.

Stereo Movies Without Spectacles

French engineer develops unique stereo projection system that requires no Polaroid spectacles or other viewing aids.

By A. D. ROE

THE DEVELOPMENT of practical 3-dimension motion pictures for theatre presentation continues to gain interest both here and abroad. Recent issues of American Cinematographer have reported interesting stereo developments in the United States and in England, and in the May issue the stereofilm system of a Holland engineer was described. In all these systems, the auditors were required to wear Polaroid viewing spectacles.

The special viewing spectacles factor has, so far, been the major objection to systems offered for theatrical presentation of 3-dimension films. Both producers and exhibitors of feature films believe the need for wearing special glasses would, as soon as the novelty of stereo wore off, discourage the public from patronizing such film presentations.

During the past several years Mr. L. Dodin, a French consulting engineer, has pursued an entirely different method for presenting 3-dimension movies to theatre audiences—a method that precludes the need for wearing viewing spectacles. Briefly, it involves projecting the stereofilms on a selectively reflecting screen composed of a number of individual mirrors. The prototype screen, which Dodin has erected in his laboratory, is pictured in the photos at bottom of this page.

According to Mr. Dodin, numerous patents have been granted on his system both here and in Europe. He is continuing his development, anticipating that the Hollywood motion picture industry, which he believes will be the first to offer stereo feature films to the public, ultimately will find it the answer to practical presentation of 3-dimension movies to large theatre audiences.

"The only unavoidable defect in other stereo processes," says Mr. Dodin, "is the necessity of having to wear special viewing spectacles. With my screen, which virtually transports the eye of the viewer to another position in the theatre or auditorium, this disadvantage disappears since it is now possible to adapt the viewing aids on to the image that the eye will perceive, and not directly on to the eye itself."

In other words, Mr. Dodin has found it possible to adapt the essential mechanics of certain types of stereo viewing spectacles directly to and within his stereofilm projection system, thereby eliminating the exhibitor's chief objection to stereo films.

It should be noted first that in Dodin's system the entire theatre auditorium constitutes a gigantic optical instrument, which is composed of the following elements:

1) The eyes of the spectators.

2) A main screen (M in Figs. 1 & 2)

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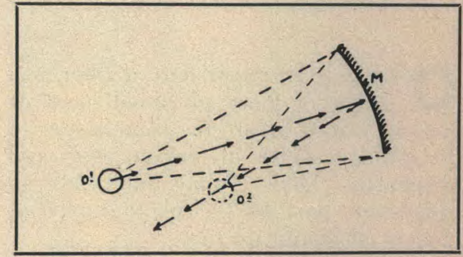


FIG. 1—Diagram of ray path. The reflecting mirror-screen M forms a real image at O^2, which the viewer sees from position O^1 in theatre auditorium.

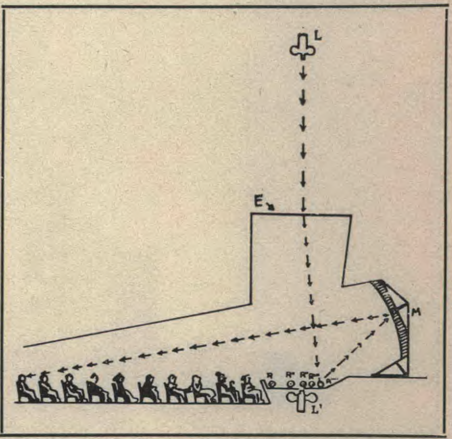
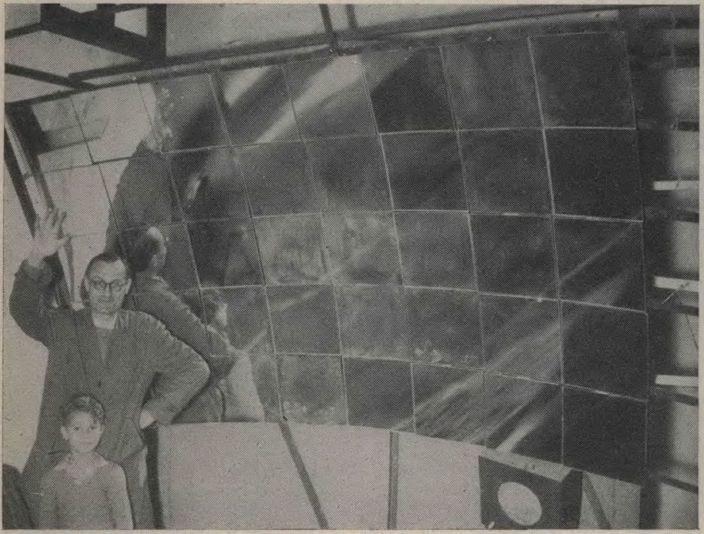
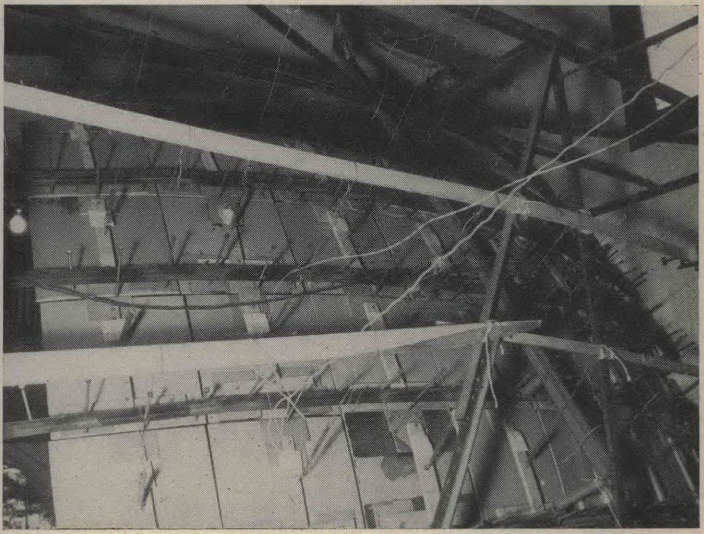


FIG. 2—Crosssection view of typical theatre auditorium equipped for author's system. Concave mirror-screen is shown at M, while secondary screen on which image is projected is shown at E. Alternative positions for projector are shown at L and L^1.



PROTOTYPE of author's segmented mirror-screen. Each mirror section is curved and adjusted for angle and curvature from rear. From distance, screen appears as a solid unit.



REAR VIEW of mirror-screen shown at left. Adjustable screws and springs permit adjusting angle and curvature of each mirror section. Screen projects undistorted 3-dimension pictures in space before screen.

Filters In Cinematography

Knowledge of filters and what they can do is essential to cameramen in all fields of motion picture photography.

By JOHN FORBES

ONLY A FEW YEARS ago, a filter was simply a piece of tinted glass or gelatin placed before the camera lens to heighten contrast—to darken skies and emphasize clouds. Today, filters are an important part of the photography of nearly all motion pictures.

Filters and what they can do when used with certain films under specific conditions are subjects of continuing study by studio laboratories and by the foremost directors of photography. Thanks to this continuing development and improvement of filters, new color film processes have been perfected for motion pictures; the contrast quality of films for television have been improved; and black-and-white films can now give certain outdoor film productions a pictorial impact equal to color.

Today, the professional cinematographer must have a thorough knowledge of the use and care of photographic filters, and of the results to be obtained with them. Filters of different colors, densities and substance are used in photography for many different and specific reasons.

Correction filters are used to alter the response of the film, so that all color will be recorded at the brightness level seen by the eye.

Color correction filters are used to balance color film for the color temperature of the illumination source, whether it be sunlight, or incandescent or arc light.

Diffusion filters are used to soften sharpness of image, creating a pleasing, soft pictorial quality. They are used to considerable extent in filming very large closeups of players.

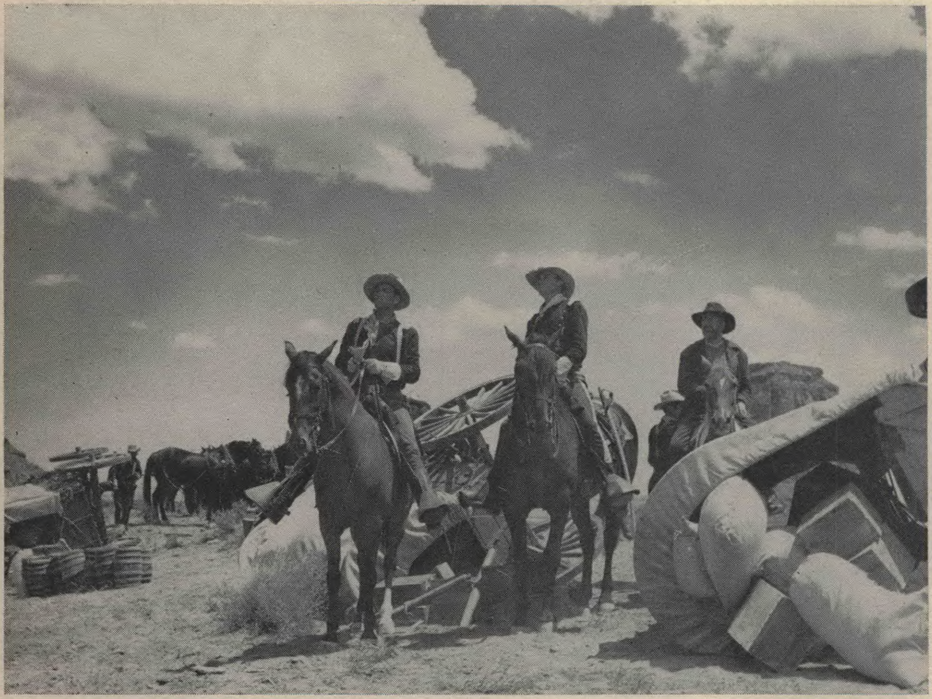
Fog filters are used to create an illusion of fog in a scene by producing a misty or atmospheric haze effect, optically.

Neutral density filters reduce the amount of light passing through the lens, but otherwise do not affect the tonal rendition of the scene. These filters are used to neutralize extreme contrast, or when the prevailing light is so strong, over-exposure results even when the smallest stop on the lens is used; also for creating a softening effect on harsh-lit subjects in a scene.

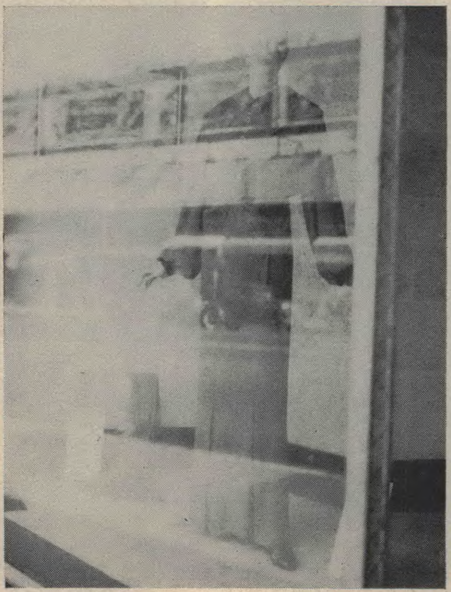
Polarizing filters or "screens" are a special type of light absorber used for controlling strong glare and brightness of sky, water, or certain bright objects within a scene.

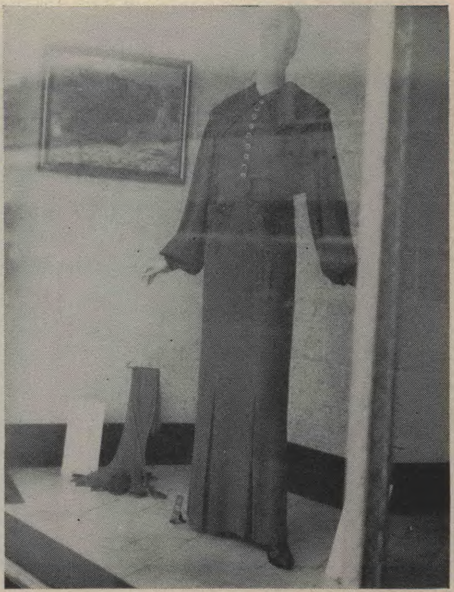
The use of filters in most instances

(Continued on Page 313)



WITHOUT a filter before the camera lens, this shot would lack the pictorial punch of the cloud-flecked skies, also detail in player's faces would be considerably obscured. Where scenes like this are shot on successive days, great care must be used in selection of filters to insure continuity of contrast from one scene to the next.





PHOTOS at right show value of the Polaroid filter in absorbing undesirable reflections in a scene. Note how the buildings, etc., which appear as reflections in photo at right, have been eliminated almost entirely in the adjoining shot by use of a Pola-screen on the camera lens.

The greatest justification
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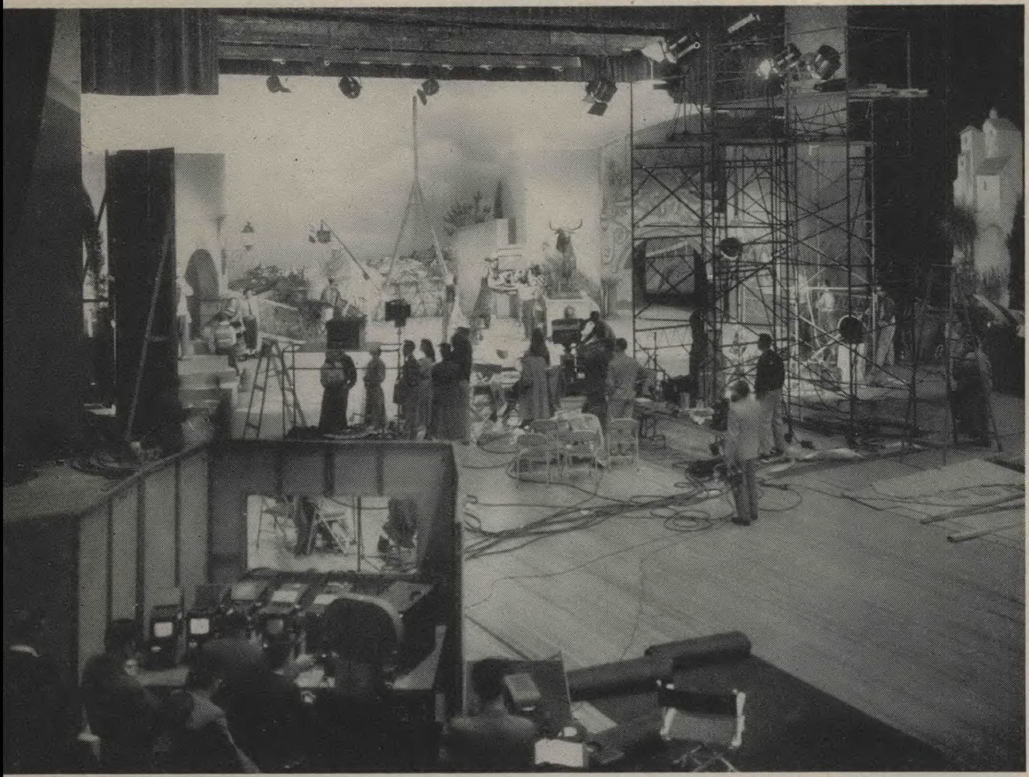
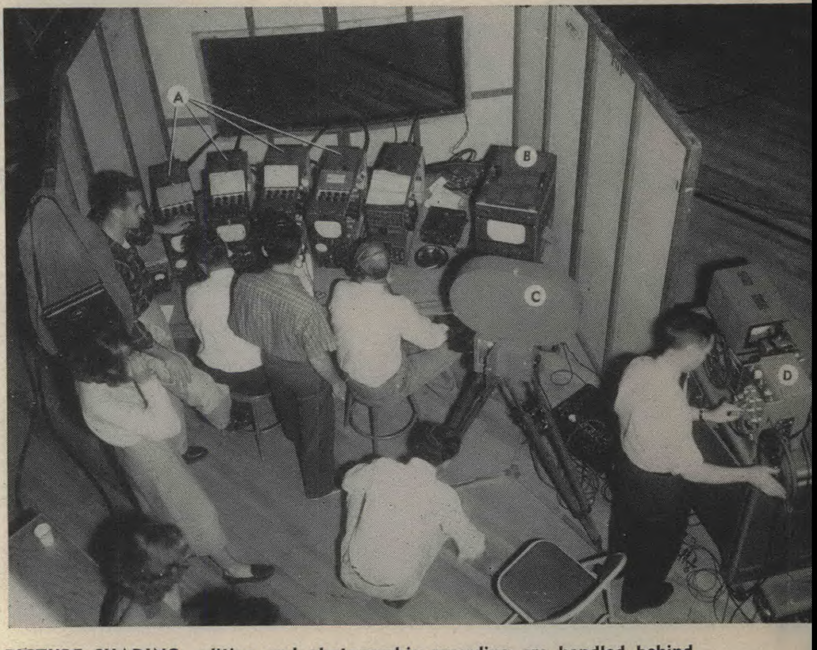


THREE TELEVISION CAMERAS cover the action, while in the film recording center at lower left a motion picture camera photographs result of the TV camera pickups from a monitor screen.—Photos courtesy Standard Oil Company of California.

Electronic-Photo Recording—New TV Filming Method

Photographing TV shows directly from monitor tube offers advantages of electronic cutting, benefits of smaller lens apertures.

By CHARLES L. ANDERSON



PICTURE SHADING, editing and photographic recording are handled behind this walled-in enclosure in a corner of the stage. Signals coming from each of the cameras appear on the four monitors at (A); the selected take appears on the master monitor (B) and is recorded by the film camera (C). The high-fidelity magnetic film phonograph used for playback of music during shooting is shown at (D).

THE MERITS OF FILMED television programs vs. live ones have been disputed almost as long as TV broadcasting has been in operation. There are enough advantages to both systems to keep one from completely dominating the airwaves. Now in San Francisco an outstanding TV program series is being prepared, in which the advantages of live *and* filmed shows are combined.

"The Standard Hour," presented by Standard Oil Company of California, has been a favorite West Coast classical-music radio program for twenty-five years, and this fall an experimental 13-week TV version will be telecast in addition to the radio series. It is now being recorded on film by a new procedure developed especially for this program.

Standard's executive producer, Adrian Michaelis, knew that the large-scale opera and ballet numbers scheduled for the program could not be staged on a live show each week without incurring tremendous expense. Straight filming of the programs for telecasting was also considered and rejected. Regular motion picture procedure would have required repeating the action too often in recording it from a variety of angles; and there would be no assurance the scenes were recorded exactly as desired until the first rushes were screened.

Michaelis organized a staff of television and film experts in San Francisco to produce "The Standard Hour" TV show. They developed a "modified kinescope" technique which is proving to be an ideal solution to the problem. Briefly, it works in this manner: Three or four television cameras are trained on the singers, dancers, or musicians during a musical number. The picture signals from these cameras are fed to nearby monitor screens and a switching panel. A large monitor screen at the end of the control area carries the selected image to be recorded on film. Meanwhile, a video-recording camera photographs this screen continuously during takes.

Technically, this procedure is known as kinescoping, but in practice it no more resembles ordinary kinescoping than a

TV camera resembles a movie camera. In this case the program is not being broadcast "live" during the performance. No one sees it but the people on the set and at the monitoring screens. And action may be repeated until the director gets exactly what he wants. He has the double advantage of being able to watch the action on a television screen, exactly as it will appear on home sets months later—and to ask for a retake if he isn't satisfied. Neither straight movie filming nor a live show can offer both these advantages.

Filming of the television image is in the hands of William A. Palmer, a producer of industrial motion pictures in San Francisco for many years. Before the "Standard Hour" filming, almost all kinescoping was set up by electronic engineers on a more or less theoretical basis. If an exceptionally bright screen or a postive film stock were *supposed* to produce a better image, they were used. Palmer's idea is that he gets the best picture if he can watch a recording-monitor screen of normal brightness and contrast. His film stocks and developing times are balanced to reproduce in the final broadcasted image almost exactly what he sees on the screen before his camera. Palmer prefers to balance each scene for contrast and brightness right on the monitoring screen. He claims that photographing a program of the calibre of "The Standard Hour" can't be done on a "slide rule" basis.

Before a foot of film is exposed for one of the programs, all musical selections are recorded on a high-fidelity Ampex tape recorder. Carmen Dragon, network radio and motion picture conductor, leads the Standard Symphony Orchestra in San Francisco's Radio City. The best "takes" are dupe-recorded onto perforated 16mm magnetic film, and this is considered the

(Continued on Page 306)

SLATING the scene before starting the take—unusual in television, but necessary in this system because the program is photographed on film through the video electronic system; thus slate aids the cutter in the final editing.

Television Film Production

By LEIGH ALLEN

JUNE PRODUCTION ACTIVITY: The following cinematographers were actively engaged in Hollywood during the past month directing the photography of television films:

LUCIEN ANDRIOT, A.S.C., "Rebound" series of half-hour adult dramas for Bing Crosby Enterprises, at RKO-Pathe studios. Also, two series of half-hour TV films for Lancer Productions, same studio.

JOHN BOYLE, A.S.C., "Big Town" series of 26 half-hour dramas at General-Service Studios, for Gross-Krasne, Inc.

WILLIAM BRADFORD, A.S.C., "Annie Oakley" series of half-hour westerns for Flying A Productions.

NORBERT BRODINE, A.S.C., "Racket Squad" series of half-hour telepix at Hal Roach Studios, for Showcase Productions.

DAN B. CLARK, A.S.C., the "Unexpected" series of half-hour telepix for Ziv Productions.

LEONARD CLAIRMONT, "Man Of Tomorrow," series of 15-minute telepix for Hour Glass Productions.

ROBERT DE GRASSE, A.S.C., "Amos 'N Andy" comedy series for CBS-TV, at Hal Roach Studios.

ELMER DYER, A.S.C., "Craig Kennedy—Criminologist," series of half-hour adventure pictures at Key West Studios for Adrian Weiss Productions.

CURT FETTERS, "Cisco Kid" series of half-hour westerns for Ziv Productions.

ELLY FREDERICKS, series of half-hour adult dramas at Eagle Lion Studios, for Revue Productions.

HENRY FREULICH, A.S.C., series of half-hour dramas at Motion Picture Center, for Edward Lewis Productions.

KARL FREUND, A.S.C., "I Love Lucy," half-hour comedy series at General Service Studios, for Desilu Productions. Also, "Our Miss Brooks," series of half-hour comedies, also for Desilu Productions.

FRED GATELY, A.S.C., series of 15-minute telepix with Art Linkletter, for John Guedel Productions.

FRED JACKMAN, JR., A.S.C., series of half-hour dramas for Fred Jackman Jr. Productions, at General Service Studios.

BENJAMIN KLINE, A.S.C., "Fireside Theatre" series at Eagle Lion Studios, for Frank Wisbar Productions.

JACK MACKENZIE, A.S.C., "Boss Lady," series of half-hour comedies for Wrather Television Prod., Inc., at California Studios.

JOHN MARTIN, "Wild Bill Hickok" series of half-hour westerns at Sunset Studios, for William Broidy Productions.

VIRGIL MILLER, A.S.C., "The Phantom Pirate," series of half-hour dramas for William F. Broidy Productions, at Sunset Studios.

JOE NOVAK, series of 15-minute westerns at Goldwyn Studios, for Roy Rogers Productions.

KENNETH PEACH, A.S.C., "Family Theatre" series of half-hour dramas for Jerry Fairbanks Productions, Fairbanks Studios.

ROBERT PITTACK, A.S.C., "Lone Ranger" series of half-hour westerns at General Service Studios, for Jack Chertok Productions.

CLARK RAMSEY, "Ramar Of The Jungle," half-hour adventure pictures for Arrow Productions, at KTTV Studios.

MACK STENGLER, A.S.C., "Beulah" series of half-hour comedies for Roland Reed Productions, at Hal Roach Studios.

ALAN STENSVOLD, "Smilin' Ed's Gang," half-hour juvenile adventure pictures for Frank Ferrin Productions.

HAROLD STINE, Telescriptions series of short musical films for Snader Telescriptions, at California Studios.

WALTER STRENGE, A.S.C., "Mystery Theatre" series, also the "My Little Margie" series of half-hour pictures at Hal Roach Studios for Roland Reed Productions.

STUART THOMPSON, A.S.C., "Cavalcade Of America" series of half-hour dramas at Eagle Lion Studios for Screen Televideo Productions.

PHIL TANNURA, A.S.C., "The Burns And Allen Show," series of half-hour comedies at General Service Studios, for Ralph Levy Productions.

JAMES VAN TREES, A.S.C., "Groucho Marx Show," half-hour comedy series at NBC Studio, for Filmcraft Productions.

•

Biggest news in the realm of television film production last month was the announcement that the major studios were planning to enter into TV film production. Two Hollywood studios already are "in the business" with subsidiary companies turning out video films. These are Universal-International's United World Productions, and Columbia Pictures' Screen Gems. Latter made trade paper headlines June 10th with announcement that company has signed contract to produce a series of TV films for Ford Motor Company. In connection with this, the daily Variety said: "All of the

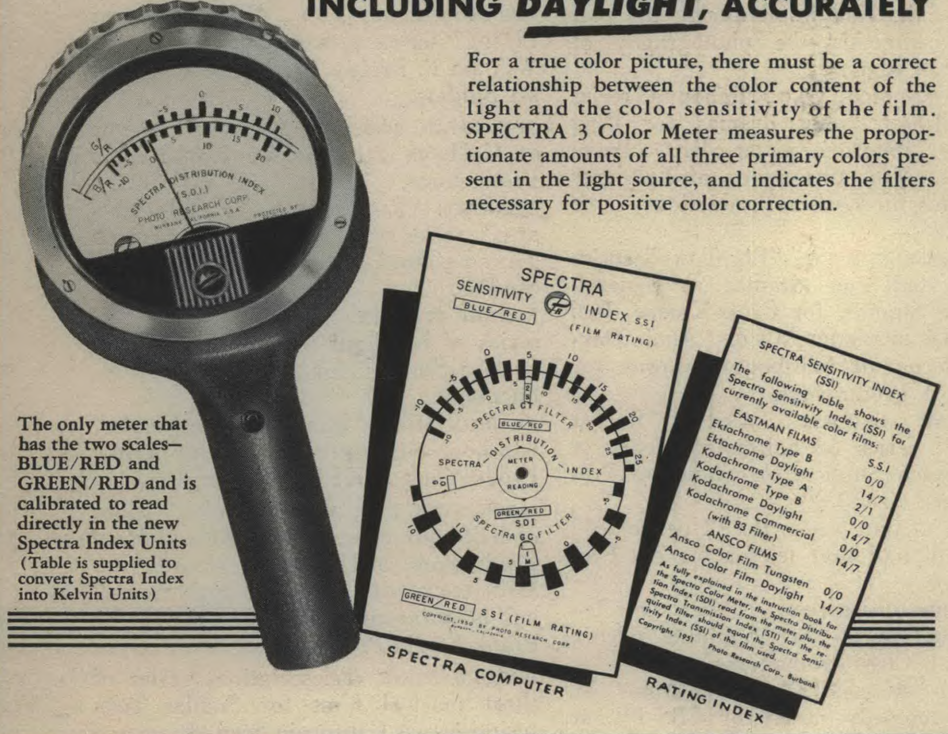
(Continued on Page 322)

SPECTRA INSTRUMENTS for

New SPECTRA 3 COLOR METER

THE ONLY METER THAT MEASURES ALL LIGHT SOURCES, INCLUDING *DAYLIGHT*, ACCURATELY

For a true color picture, there must be a correct relationship between the color content of the light and the color sensitivity of the film. SPECTRA 3 Color Meter measures the proportionate amounts of all three primary colors present in the light source, and indicates the filters necessary for positive color correction.



SPECTRA SENSITIVITY INDEX (SSI)

The following table shows the Spectra Sensitivity Index (SSI) for currently available color films:

EASTMAN FILMS	S.S.I
Ektachrome Type B	0/0
Ektachrome Daylight	14/7
Kodachrome Type A	2/1
Kodachrome Type B	0/0
Kodachrome Daylight	14/7
Kodachrome Commercial (with 83 Filter)	0/0
	14/7
ANSCO FILMS	
Ansco Color Film Tungsten	0/0
Ansco Color Film Daylight	14/7

As fully explained in the instruction book for the Spectra Color Meter, the Spectra Distribution Index (SDI) read from the meter plus the Spectra Transmission Index (STI) for the required filter should equal the Spectra Sensitivity Index (SSI) of the film used.

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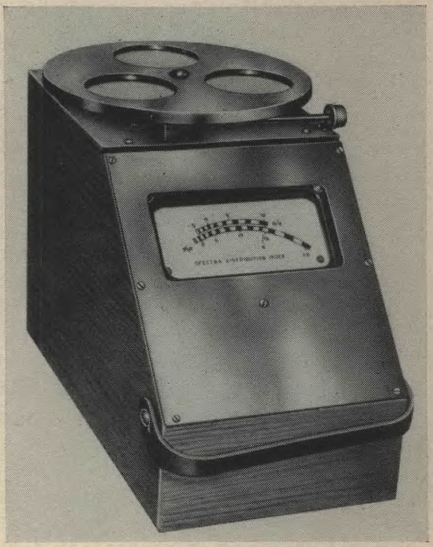
The only meter that has the two scales—BLUE/RED and GREEN/RED and is calibrated to read directly in the new Spectra Index Units (Table is supplied to convert Spectra Index into Kelvin Units)

NOW - - the SPECTRA

Ultra-Sensitive 3-Color Temperature Meter



Gives accurate color temperature readings of light intensities low as 35 foot candles at 10 feet.

SPECTRA 2-Color

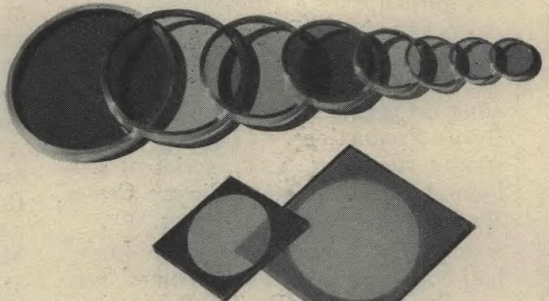
Color Temperature Meter

The First Direct Color Temperature Meter calibrated in Kelvin units for instant color temperature readings of artificial light.

▼

The Spectra is accurate, featuring an extra sensitive photoelectric cell, yet is as simple to use as an exposure meter. Point it at the light source, touch the trigger, and the needle registers the color temperature correct within 5%. Proper correction filters can be selected to permit setting up of consistent lighting standards for color matching.

SPECTRA FILTERS



SPECTRA CT and GC FILTERS

CT (Color Temperature)
GC (Green Correction)

All filters are optically flat and coated. The SPECTRA 3 Color Meter indicates the correct SPECTRA Filter to be used.

Graduated color or neutral density filters in 2″ and 3″ squares and special sizes also available.

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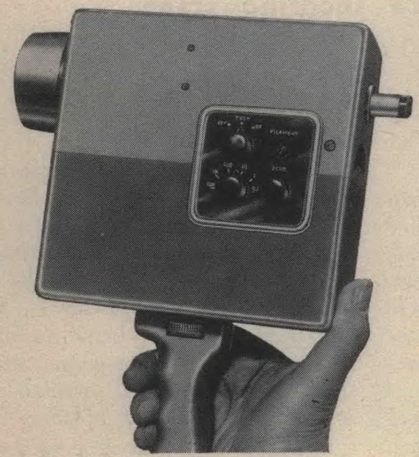
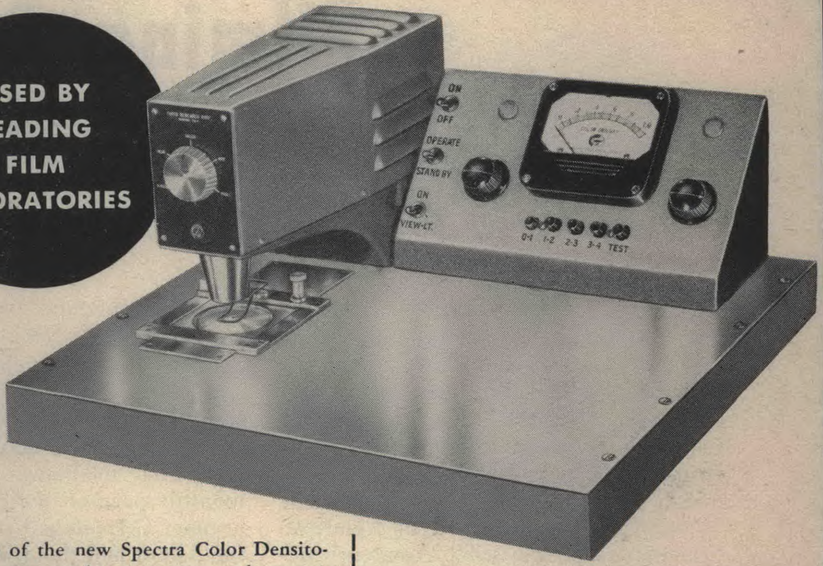


The new Spectra Brightness Spot Meter is designed to measure the brightness of a very small area at any distance from four feet to infinity, through the use of a vacuum photocell, amplifier and microameter. It is, therefore, completely independent of the variable sensitivity of the observer's eye and requires no matching of brightness. Any user will obtain the same reading of a given area.

SPECTRA COLOR DENSITOMETER

USED BY LEADING FILM LABORATORIES



The throat of the new Spectra Color Densitometer is deep enough to measure to the center of an 11x14 plate or film...yet convenient for production control of both 16mm and 35mm motion picture processing.

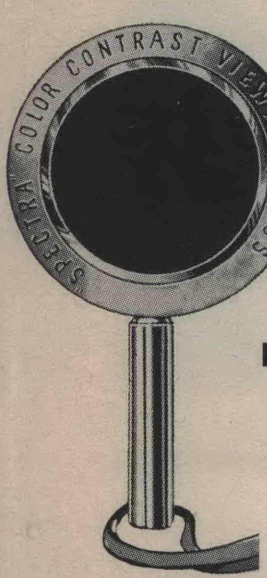
Linear density scale .0 to 1 covering full scale length with additional push-button ranges of 1 to 2, 2 to 3 and 3 to 4.

Filters furnished to read the Yellow, Magenta and Cyan densities.

Reads Color and Black & White densities—defused visual and print densities. The final answer to processing control.

EXCLUSIVE FEATURE: Illuminated disc in table makes it easy to center test strips for quicker, more accurate readings

SPECTRA VIEWING GLASSES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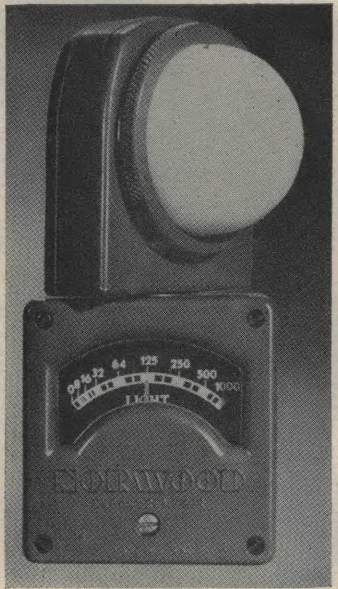

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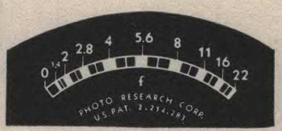
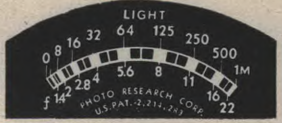
Special Scale Conversions Also Available



F-STOP SCALE



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Photogrid	5.25
Extra Slides, each	1.50

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KARL FREUND, A.S.C., President

Filming A Winner

Mother and son combined their creative talents to produce a puppet film, used the family garage for a shooting stage.

By ARTHUR ROWAN

THE MARCH 1ST DEADLINE arrived all too soon for Joseph and Elgie Fischer. They had their entry completely filmed and edited, but had not yet time to provide the narration which was to be recorded on tape. Nevertheless, their entry, "Goldilocks and the Three Bears," minus narrative, won an Honorable Mention certificate award in American Cinematographer's 1952 Amateur Motion Picture Competition.

There is quite a story behind the making of this remarkable 16mm Kodachrome picture featuring puppets. It was begun expressly as an entry in American Cinematographer's 1952 competition. Fischer, an engineer at Northrup Aircraft Corpn., in Los Angeles is an artist and musician of note as also is his mother, Mrs. Elgie L. Fischer, who "coproduced" the picture with him. Both have an extensive background of little theatre work and more recently of producing puppet shows.

When they determined to make a film for the 1952 Competition, they never before had made a full-length movie. Indeed, they had been shooting movies only a year. At first they rented a 16mm camera. They didn't know enough about handling it—there were no Kodak Cine Photoguides then!—with the result their first 300 feet of Kodachrome was a failure. This so discouraged them, the whole idea of making movies was promptly abandoned. But this discouragement wore off with time, and very soon the old creative urge saw the Fischers contemplating a resumption of cinefilming activities.

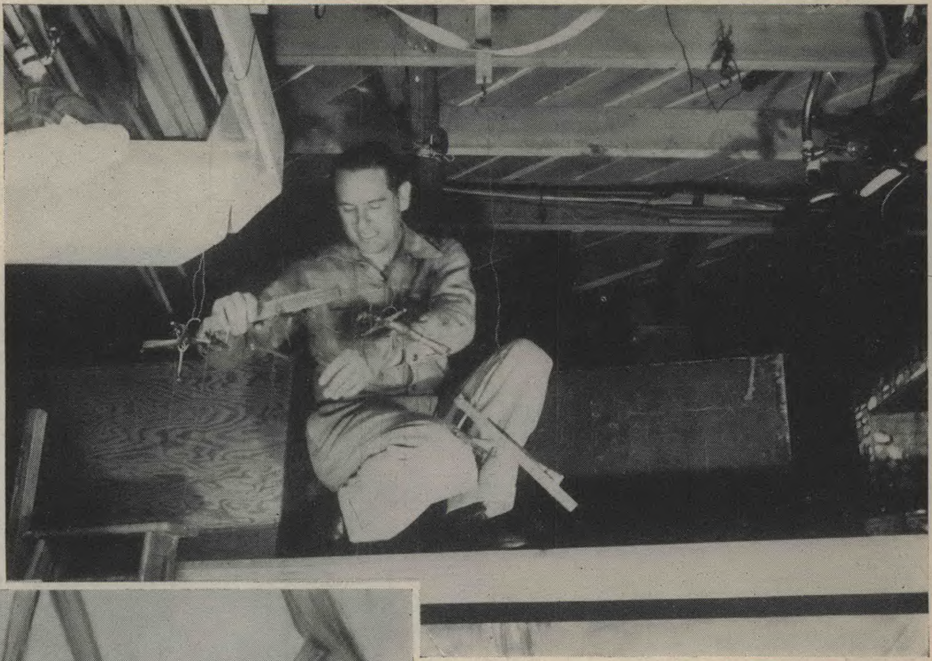
This time they bought their own camera—a Filmo 70-D. They very carefully read the instruction book, plus one or two other books on the subject, and this intensive study plus their monthly perusal of American Cinematographer's *Amateur Cinematography* section, soon had them in action again.

"In 'Goldilocks and the Three Bears,' our first full-length film," said Mrs. Fischer, "we followed the story as it was told by a grandmother in our family in Virginia generations ago. So, immediately after the main title (which suggests the 'Once upon a time . . .' spoken by the unseen narrator in person) we show shots of Papa Bear, Mama Bear, and the little, tiny Baby Bear.

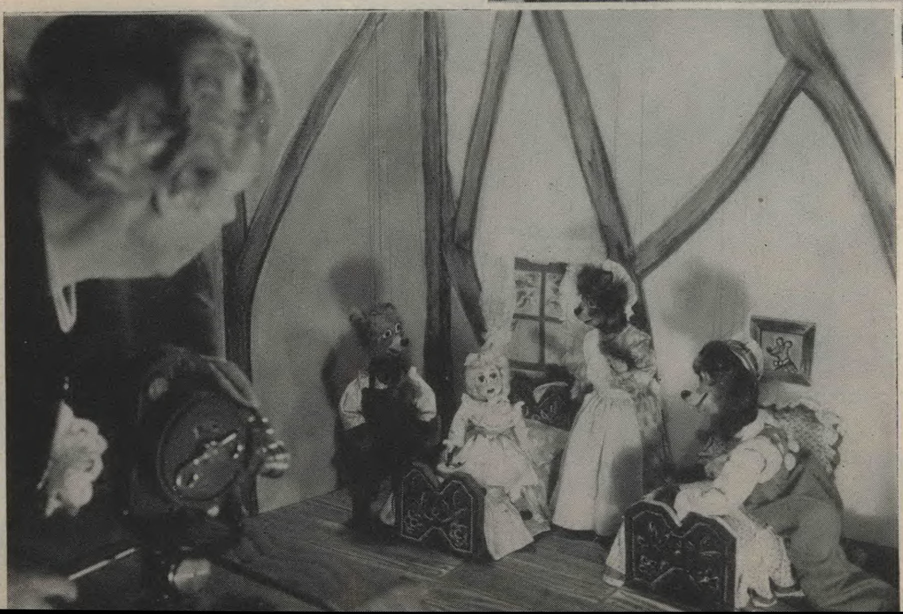
"Then follows a long shot of the Bears' living room, followed by closeups of the three porridge bowls, the three chairs and the three beds in anticipation of the story that is to come. Showing of the beds, of course, involved a brief glimpse of the Bears' upstairs bedroom.

"Preceding the action, we introduced the locale in an overall shot of the living room, with Papa Bear standing beside his chair; then, following a semi-

(Continued on Page 307)



JOSEPH FISCHER, who designed and built the puppets and sets for "Goldilocks And The Three Bears," guides his cast from overhead catwalk while Mrs. Fischer photographs scene with a Bell & Howell 70-D camera.



PROFESSIONALS would have recorded the narration first, then played it back during filming as means of synchronizing puppets' movements. Here, Mrs. Fischer speaks narration at same time she films scene, cueing son's control of puppets' action on stage.

Get more movies for your money *with finer Ansco Hypan!*

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Experienced movie makers can tell you *plenty* about Hypan's extremely fine-grain, that puts crisper, sharper images on your screen. They'll tell you, too, that Ansco Hypan has inherently brilliant contrast that adds real snap and sparkle to your personal black-and-white movies. Hypan is fast, too: Exposure Index in Daylight 40, in Tungsten 32. . . . So make *sure* you ask for Ansco Hypan Reversible Film—at your dealer's.

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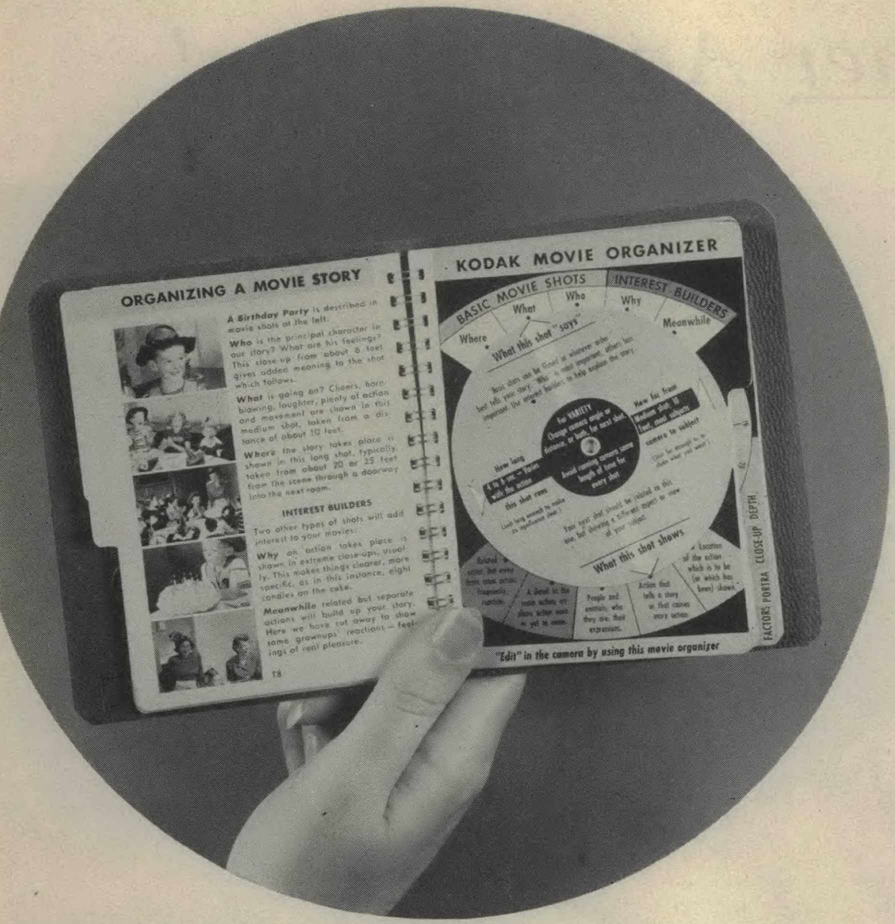


THE KODAK Cine Photoguide includes a unique dial-type calculator that shows how to organize a movie story so that pictures will have professional-like continuity. Other pages contain vital technical information, tables and additional calculators for exposure, etc.

Want To Step Up In Class With Your Movies?

Eastman Kodak's new Cine Photoguide places all vital technical data at your fingertips, tells how to organize your movies for continuity.

By JOHN FORBES

THE REASON CONSISTENT good results come easy to the professional cinematographer is, that working almost daily with his camera, he becomes accustomed to its operation and to all the necessary photographic procedures. Judging exposure, setting focus and diaphragm stop, and selecting the best picture compositions come naturally to him.

With the average amateur, use of the camera is more or less periodic; he rarely shoots movies long enough at a time, nor often enough, to develop a "feel" for the technique. With many it is necessary to take a meter reading for every shot; double check focus and lens settings; and all too often preoccupation with such details robs the cine amateur of time that could more profitably be devoted to improving pictorial composition or organizing his movie story so that pictures have real impact on the screen. Thus, with movie making only a part-time activity, the amateur who would turn out prize-winning movies needs a dependable source of quick answers to his many problems—problems that become vitally important to the success of his pictures, once he gets his camera set up and ready to shoot.

Eastman Kodak Company has been the first to recognize the the need of the movie amateur in this respect and has come to his assistance in a most practical way with the Kodak Cine Photoguide—a fine little handbook of vest-pocket size, expertly prepared, which is destined to make amateur movies a more pleasurable and successful hobby for more cinebugs.

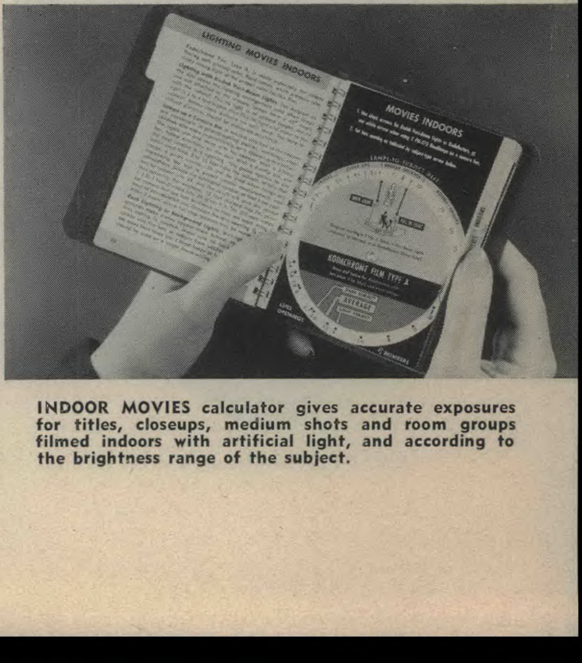
Generally, the new guide is much the same in size and format as the Master Kodaguide for still picture-making recently published by the company. In other words, it's a 4 x 4¾-inch, ring bound, group of well-indexed data cards which provide capsulated information on every subject home movie makers should have at their fingertips. Its prime purpose is to help even the veriest amateur make better and more interesting home movies in the easiest possible manner with the least fuss and bother.

To achieve this, the Photoguide is divided into three sections—exposure, story and lenses.

Both usual and unusual lighting conditions—indoors and out—are reviewed in the section on exposure. Two dial-type exposure calculators, one for daylight and one for indoor movie making, are a part of this handy booklet—attached to the sturdy ring-binding so they never become misplaced. These, with easy-to-read charts make this a section that takes a fairly complex subject and makes it easy to understand and apply.

As stated in the book: "Good exposure is essential for good movies. Should you use a guide, a meter, or

(Continued on Pafe 312)



INDOOR MOVIES calculator gives accurate exposures for titles, closeups, medium shots and room groups filmed indoors with artificial light, and according to the brightness range of the subject.

If Your Film Needs Narration . . .

Put meaning into the words you speak, but don't try to "dress up" barren footage with values which fail to reveal themselves on the screen.

By LEO J. HEFFERNAN

(Reprinted From Metropolitan Motion Picture Club Bulletin)

If you have a film which is all set to go—edited and ready for titling, but you decide that a spoken commentary will tell the story better than long explanatory titles, don't blush and stammer and finally blurt out that someone else had better speak the lines for you. It's easy. Step right up to the microphone yourself and, in your best pear-shaped tones, deliver that old load of yumph right into the ears of your audience.

After all, the commentary is as personalized as the film itself and if you allow someone else to take over, you are shirking part of your responsibility as story-teller. But—and there is always a but—there are as many tricks to learn about announcing as there are in connection with the gentle art of movie-making.

Perhaps your friends have told you that you have a good telephone voice. Well, that's fine and it will help, but your microphone manner will be quite different from the telephone approach. Instead of yapping chattily as you would over the 'phone, and striking attitudes which might worry a movie audience (or bore them), it is more effective to adopt a completely relaxed, though intimate and personal, manner of speaking, just as you would in a face-to-face conversation. Many people will hear your voice, but it will seem to them that you are speaking directly. It must be this way, for you will want them to concentrate on the screen pictures and they must never feel that you are delivering a lecture to them.

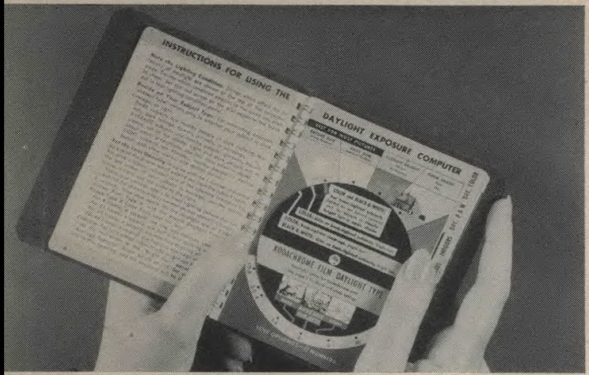
The initial messages are important, for it is during their delivery that you must "sell" your voice to the audience. Unless you soothe and please them, taking care not to convey the impression that you are nervous or flustered, you will be unable to hold their interest throughout the film. Always remember that it is possible to tune a voice out completely simply by paying no attention to what is coming over the microphone. Your audience will either like or resent your voice and their decision will be made in no time flat.

It is a mistake to "elocute" formal literary phraseology or show off your vocabulary, no matter how many long words you can lay claim to. Plain speaking, short words and short sentences will be liked, and it will help to keep in mind when writing the spoken script, that well-bred people seldom go in for jaw-breakers. They don't need to because their culture is evident in their manner of speaking, and that's the way it must be when you deliver *your* spoken commentary.

Imagination plays a very important part in such proceedings, and you must visualize your listener, (note the singular), as sitting opposite you. If you do, you will want to talk to him, just as you would in normal conversation. You will not shout if you expect him to like you. You will not yap like a poll-parrot, unless you want him to resent what you have to say. No, there are two things you want—you want him to believe and like you, and you can accomplish your purpose by being friendly, intimate, and above all, normal in every way.

Put meaning into the words which you speak, but don't try to "dress up" a lot of barren screen footage with values which fail to reveal themselves on the screen. If all you show on the screen is a long shot of a man walking along a street, don't say "—and here we find our hero, after having been to church on this bright Sunday morning, walking slowly home, meditating on the potent of a well delivered sermon, and looking forward to a quiet perusal of some Sunday periodicals." This is all tripe and everyone will know it.

Try not to sound as if you are reading. If you make a mistake or stutter, go right on without trying to correct the error. Alright now—you're on! Here is the mike and the sound engineer has already taken a voice level. The first thing you do is RELAX. Relax the muscles of your mouth and jaw. For goodness sake, don't tighten your mouth. All set? Fine. Steady now, go right ahead and speak. You will find that the words will click clearly away from your tongue and lips—and your voice will not rise to a screaming pitch because you are so very relaxed about all this. The microphone is so sensitive that it will deliver every soft-spoken word. So, easy does it.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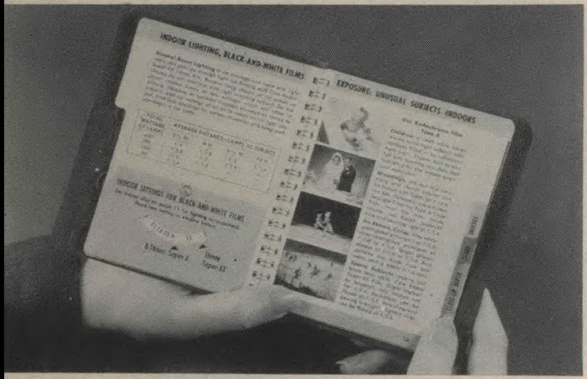
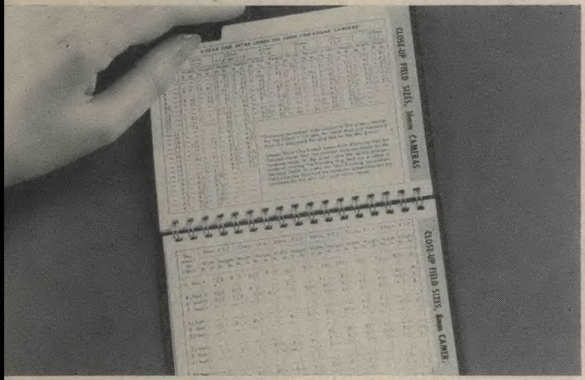
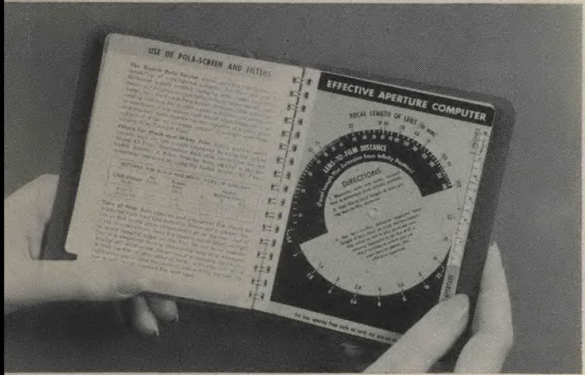

INDOOR LIGHTING, BLACK-AND-WHITE FILMS
EXPOSING UNUSUAL SUBJECTS INDOORS
INDOOR SETTINGS FOR BLACK-AND-WHITE FILMS

FOR UNUSUAL SUBJECTS INDOORS, where a meter sometimes fails to give proper exposure figure, this data page supplies ready answers.


CLOSE-UP FIELD SIZES, 16mm CAMERAS
CLOSE-UP FIELD SIZES, 8mm CAMERAS

TWO FULL PAGE CHARTS give data on closeup field sizes for both 16mm and 8mm cameras, for lenses of different focal lengths.



EFFECTIVE APERTURE COMPUTER enables user to find the f-number at which to set a lens to obtain the effective aperture, when lens is extended from infinity position.

NEW TV FILMING METHOD

(Continued from Page 299)

master sound record from then on.

One week after the original recording sessions, the musicians and singers re-enact their roles before the television cameras while the recorded selections are played back over a loud-speaker. Perhaps readers will recognize this system as being the same as used in Hollywood studios in filming musical numbers. Probably the main advantage of it is that it's much easier for singers to give a first-rate performance musically when they're not concerned with how they look for the cameras. Also important is that having to cut the sound track every time a cut in the picture is made would result in a choppy, uneven musical score.

From the 16mm magnetic sound track, 78 r.p.m. phonograph records are cut for rehearsal purposes. The artists then practice their numbers to these records which can, unlike tape and film, be played almost anywhere. A copy of the master sound track is also made for playing on the set during filming.

The television staff on the program are from KGO-TV, San Francisco. Set design and the general visual effect are planned by Ed Smith, art director, and Bill Martin, his production designer. Sketches are made for each number, but these are considered by Bill Hollenbeck, production director, more as a guide to what can be done than a strict blueprint to follow.

The shooting stage closely resembles a motion picture set, the only difference at first glance being that television cameras are mounted on the tripods and dollies. Yet the mounts for these cameras, including a $12,000 electric Houston crane, are standard Hollywood equipment. Set aside from the shooting area on the stage floor is the control and recording table, where the images from each TV camera are monitored and edited. At the right end of the table is Bill Palmer's kinescoping equipment. He is now filming the programs in both 35mm and 16mm and uses two monitors and two cameras for the job.

Both the 35mm and 16mm cameras which Palmer uses are of his own special design and construction. They have extremely fast pull-down mechanisms and take 2000-ft. film magazines. Both cameras photograph the monitor image at 24 frames per second.

During rehearsals director Hollenbeck is generally near the cameras where he gives directions to the performers and cameramen. But the final rehearsal finds him at the control table where he can watch the action exactly as the film recording camera sees it. Any last-minute instructions to the people on the set is made via small inter-com telephone headsets which are worn by almost everyone but those in the cast. Messages to the cast are relayed by phone to the assistant director, who relays them to the cast.

Just before each take is begun, the stage manager holds a large movie-style slate before one of the TV cameras. Then Palmer switches on both his film cameras and a magnetic film phonograph to play the musical score. The slate is withdrawn and the artists before the cameras begin their roles as they hear the music. Later, the original sound tracks are matched to the processed footage.

Palmer's 16mm single-system sound camera has a variable-area sound head which records the same music which the performers hear over loudspeakers during the filming. This sound track is not used in the final prints but is left on the work prints used in editing. It also enables projecting dailies of the work in progress without having to match up a sound track in the editing rooms.

Lighting is handled by Ed Smith and technical director Warren Andresen. They work in what they call the "classic" lighting pattern: Setting the key lights first, then adding fill and back lighting. Andresen operates the control panels during takes to adjust image brightness and contrast. He is therefore in an excellent position to know the lighting needs from the viewpoint of the electronic equipment the picture is sent through. Smith's contribution to the lighting is in reproducing the effects planned by his art department. The very sensitive orthicon tubes in today's TV cameras enable Smith and Andresen to use much less light than would be permissible with movie cameras, and to stop the TV camera lenses down to f6.3.

Just before film recording of the program is to begin, a visual check is made of the image quality coming to the recording screen through each camera circuit. They are checked one by one and compared. Any difference between them is now corrected through adjustment of the monitor controls, insuring that all shots switched to the screen will be uniform and in perfect balance. There is never any delay or added expense for making tests for each shot in the negative.

Whether the release prints, which will be sent to the stations this fall, will be made from the 16mm or 35mm originals has not yet been decided by the company. The 16mm reversal originals would be the most convenient to use because prints would be made on the narrow-gauge stock. But Palmer has discovered that television "noise"—the random specks of light found in any TV picture—is almost exactly the size of the emulsion grains in 16mm film. The "noise" specks are intensified considerably when they happen to coincide with film grains. If further tests indicate too much disturbance, the 35mm negatives will be set up for printing.

Prints of film recordings sent to the stations, incidentally, will carry *negative*

Sonotrack—New Sound Striping Service

A MAGNETIC SOUND track striping service for single-perforated processed Kodak 16mm film has been announced by the Eastman Kodak Company. It will be known as Kodak Sonotrack Coating. The new coating will be applied to either single-perforated Kodachrome or black-and-white Kodak Film in accordance with the standards proposed by the Society of Motion Picture and Television Engineers. The track will always be applied to the side of the film toward the projector lamp. The new coating can be applied to film taken either at sound or silent camera speeds.

Kodak Sonotrack Coating will be available in two widths, the company announced. Single-perforated 16mm films having no optical track will be Sonotrack coated the full width of the track area. Sixteen millimeter films which already have an optical sound track will be Sonotrack coated half the width of the optical track unless the owner desires that full width track be applied.

Films which are double-perforated must be duplicated on single-perforated film before the magnetic sound track can be applied. However, the company indicated that if sufficient demand for a magnetic coating service on double-perforated 16mm film develops, Kodak expects to extend Sonotrack Coating service to this type of film.

Kodak Sonotrack Coating service is available immediately and orders for such service can be accepted, Kodak announced. It is expected that the service will prove of considerable value to individuals, educators, and organizations, who wish to add sound to their silent films or vary the sound track of other films to meet specific needs. Kodak Sonotrack Service may be ordered through any Kodak dealer. The cost is in line with other similar services—3½¢ per foot.

images to counteract the loss of highlight detail in TV pickup tubes. Polarity of the image will be corrected in the amplyfying equipment.

Standard television equipment in the United States operates at 525 lines to the picture image. Some technicians believe that when TV systems are redesigned to operate with many more lines, resulting in a more detailed picture, the procedures now being developed for "The Standard Hour" may be used for all important motion picture filming—whether for television or regular theatrical showings. The advantages of electronic cutting, filming with small apertures under low light levels, and previewing the picture on a screen as it's filmed are too important to be overlooked by the motion picture industry. Any other system is bound to be known as "the hard way."

FILMING A WINNER

(Continued from Page 302)

closeup of him, the action begins.

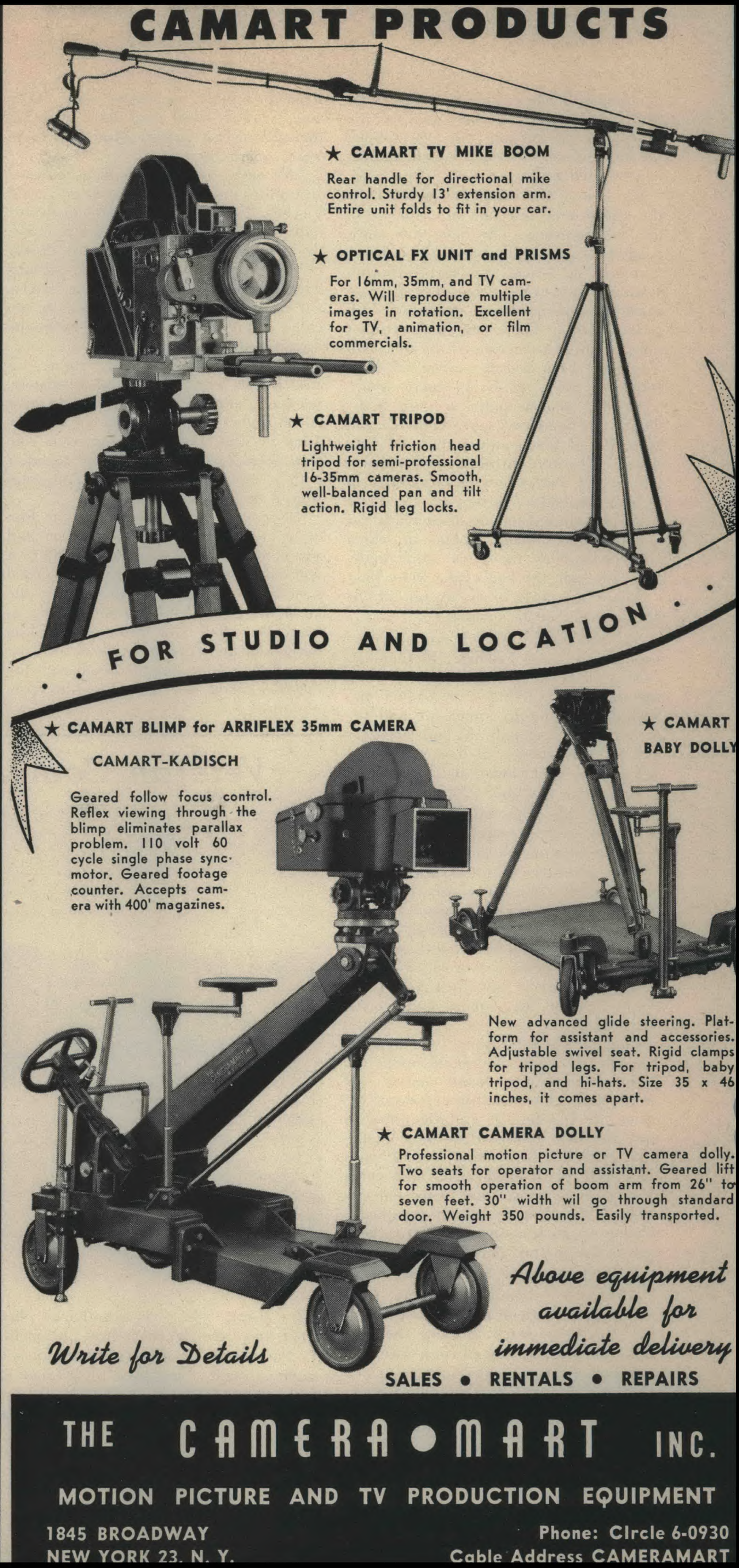
"Papa picks up his newspaper, sits down, crosses his legs and proceeds to read. Panning across the room, we show Mama Bear busy about the hearth, preparing porridge, while playing on the floor is Baby Bear.

"Each move in every shot—long, pan or closeup—was carefully detailed in the script and painstakenly rehearsed. Then we made a "dry run" with the camera on each shot before actually starting to shoot."

Behind the camera as operator was Mrs. Fischer. Above the set, out of camera range, his hands full of strings, Joseph Fischer manipulated the tiny puppets according to script. Here proper timing was accomplished by following the narration spoken by Mrs. Fischer at the same time she operated the camera. This was essential to achieve a fair approach to synchronization with the narration that was to be recorded later.

Joseph Fischer also was the "gaffer" or lighting engineer for the production. Previously, he had designed then built and decorated the sets and props. Mrs. Fischer used her needle magic on the costumes, draperies, etc.

"We used the simplest type marionette figures," said Joseph Fischer, "and these we made ourselves." (Description of and instructions for constructing marionettes is too extensive to be detailed here, but interested amateurs may find this information in books on the subject in any public library, according to Fischer.) Scenes, too, are plain and simple. We made the flats of wallboard, and painted them with poster colors. An



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uncluttered, background, we found, gives first prominence to the tiny actors. Moreover, by keeping our sets simple, the hazards were lessened for our puppet control strings."

The aim of the Fischers was to follow the traditional fairytale atmosphere in the two interiors. The flats thus show mud-plastered walls and hand-hewn battens. The "stone" fireplace with conventional side-oven of the times also was made of wallboard and decorated with poster colors. There was a functional note in the construction of the sets, too. The same backgrounds served for both interiors. After the living room scenes were shot the fireplace section, table, chairs and stairway were removed, and positions of the windows reversed. The red, living-room curtains were replaced with white, fluffy ones more suitable to a bedroom. After setting up the three beds, the revised set was then ready for shooting the climatic scenes in which Goldilocks tries the beds, and finally falls asleep in the bed of the Baby Bear —where she is later dissovered in the slosing scene of the picture.

"In the first draft of the proposed production," said Fischer, "Mother had charge of the story material and writing the script. I contributed occasional suggestions relating to situations and the action. Modeling, painting and carpentry and the construction of figures and sets were in my department, also."

After the shooting script had been prepared, the four puppets built and costumed, and the sets constructed and dressed, shooting of the picture began. "We found after our initial experiences," said Fischer, "that the surest way for us to work was to take the puppets entirely through a scene in rehearsal before starting to shoot. Then, settling on a particular sequence, we decided on the length of time it was to run, set the lights, readied the camera and started shooting."

The picture was filmed on Type A Kodachrome with photoflood lamps for illumination. An exposure meter was never used for calculating exposures because the Fischers as yet did not own one. But they followed the data on the tiny exposure card that comes with each roll of Kodachrome, and came through with remarkable consistent results. It was the quality of the photography as much as the imaginative editing of the picture that won an Honorable Mention award for its makers.

The Fischer's shooting stage was their garage. Here Joseph had erected a suitable stage on which to erect the sets, and scaffolding overhead from which he manipulated the puppets.

As the deadline for American Cinematographer's 1951 amateur motion picture competition approached, the Fischers found time getting short. They now worked night and day, shooting then editing the picture. And then there were some retakes, too.

"As each roll of film was returned from the processing laboratory," said Fischer, "we ran it through the projector and made a note of the best takes. Later, the same film was examined more closely in the viewer-editor and the various takes marked for cutting. For safety, we made no cuts whatever until we decided where each take was to go in the finished film.

"To speed up the editing process, we stretched a wire across our workroom, fastened narrow strips of soft cloth over it to protect the film, then as the sections of film were cut from each roll, they were clipped to the wire together with a slip of paper bearing a description of the scene contents.

"It was a frantic race to get the film done in time for the competition; and although we were reluctant to enter it without completing it with recorded narration, we are glad it finished in the circle of Honorable Mention winners, at least. We shall now proceed with the narration, and this undoubtedly will be recorded on film and combined with the original print for sound-on-film presentation.

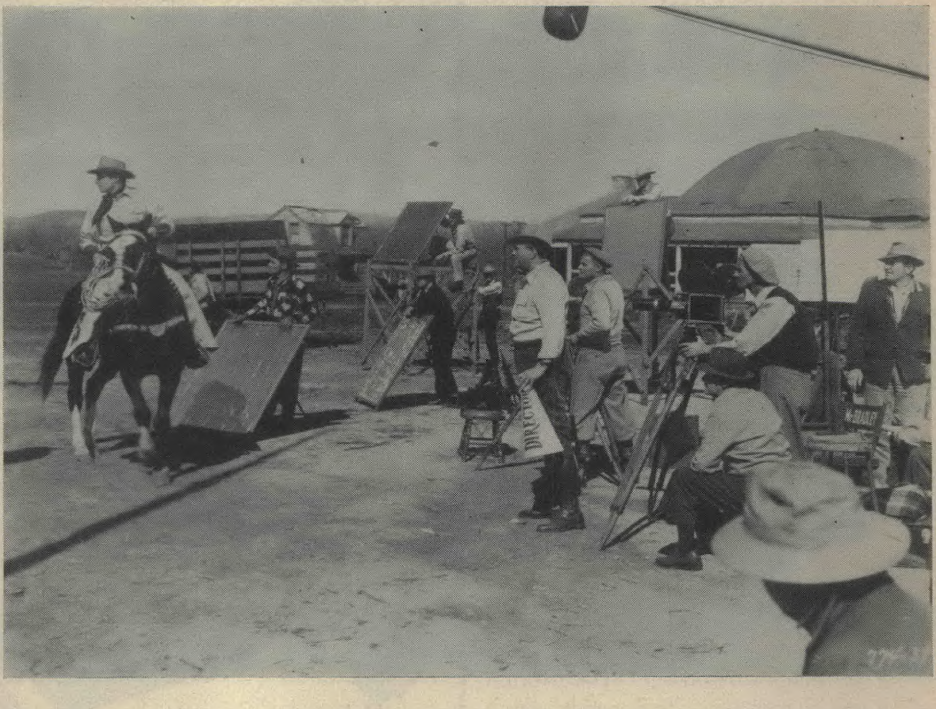
$4,000,000 MOVIE

(Continued from Page 291)

In such scenes, the use of the gelatine filters previously mentioned played an important part in the lighting. Earlier, Stradling had established a lighting color key for the different scenes—blue for most of the day scenes; green for night scenes, and a delicate soft blue for those scenes that were to have the illusion of having been filmed underwater. More than a hundred inkies were employed in lighting the large set for the "Mermaid Ballet." Each lamp was covered with a special blue filter gel; as shooting progressed, Stradling checked every lamp constantly in order to keep the filters uniform in color. When a filter began to fade from the intense light and heat, Stradling would order his "filter technicians" to replace it. Seldom has a Technicolor production required such vigilance of set lighting on the part of the cinematographer.

Stradling enjoyed one advantage in shooting this picture rarely enjoyed by major studio cameramen. He was able to shoot tests in color in advance and screen them before proceeding to shoot.

Veteran Camera Re-activated



WILL ROGERS, JR., (on horseback) plays his famous father in an early Hollywood scene from the Warner Bros. production, "The Story of Will Rogers" (color by Technicolor). A note of authenticity is lent by the Bell & Howell hand crank movie camera (right), first used by Warner Bros. in 1918. According to studio veterans, this camera filmed most of "My Four Years In Germany," the first major picture made by Warners 34 years ago. It has remained part of the camera department equipment ever since.

When making a picture, producer Goldwyn has little regard for time or money. He never starts a project until he is convinced he has found the best possible solution. It was therefore natural that he should want his cameraman to be sure before starting to shoot. For this precautionary measure, Goldwyn glady spent $20,000 for color tests. But it more than paid off in superior quality of the photography.

Watching Stradling work on the set reminds one of a grasshopper on a hot stove lid. You'll never see a canvas chair with Stradling's name on it on the set. He never has time to sit in one. Nor is he the nervous type. Coolly, he surveys his lamps constantly, walks quietly to an assistant to give instructions, then is back again beside his camera for a final survey of the scene before giving the word to "roll." If a lamp's filter starts to fade, Stradling will come to the rescue with a new filter if necessary and make the change himself. So quietly does he work that the only voice one hears on the set is that of the director or his assistant.

Stradling, who came to Goldwyn from MGM two years ago to fill the director of photography post vacated through the death of Gregg Toland, narrowly missed an Academy Award this year for his photography of "A Street Car Named Desire"—still considered by most cinematographers one of the most outstanding jobs of black-and-white photography to come out of Hollywood in a long time. Now with this lavish Technicolor production to his credit, Harry Stradling is a safe bet for nomination if not an Oscar in the 1952 awards.

STEREO MOVIES

(Continued from Page 295)

composed of an assembly of concave, spherical mirrors forming together one single mirror. (The joining of the individual mirrors is so close as not to reveal the segmentation at a distance, so that the mirror screen appears as a single unit.)

3) An intermediate screen (E in Fig. 2), which is in fact the real screen on which projection takes place—an ordinary screen whose images the audience sees only indirectly by reflection from the mirror screen.

4) The projector (L in Fig. 2), which serves to project the pictures of the stereoscopic pairs.

5) A plurality of small mirrors (as shown at R in Fig. 2).

"The function of each of these elements," Dodin said, is as follows: The eyes see; the projector projects; the in-

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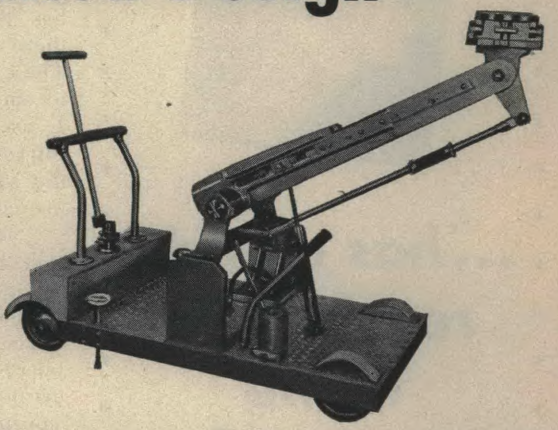

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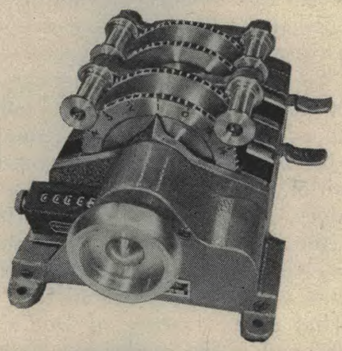

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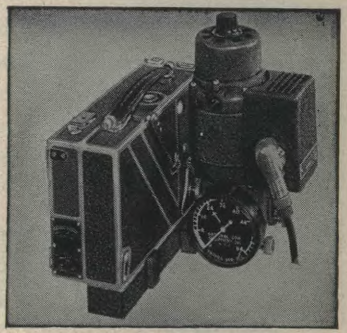

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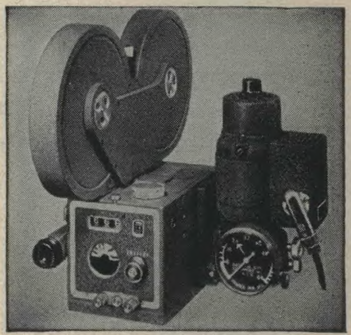

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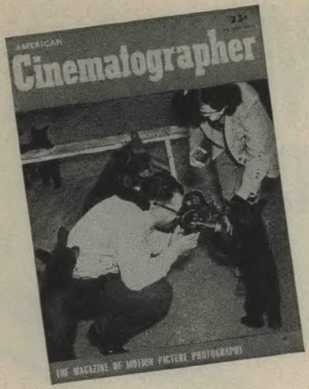

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termediate screen diffuses. There is nothing radically new there. The mystery commences to deepen only when we come to the spherical mirror and the small mirrors.

"It is known that a concave mirror can project into space the image of any object which is within its field. If one has there a number of objects, then there will be a number of images. These are termed the conjugate images of such objects. It is this principle that I use. The concave, multi-segmented mirror screen occupies in the theatre the same position as that of a normal projection screen.

"Starting now from the eye of the spectator before this mirror-screen, this eye is an object with respect from the screen (like any other object) and an image of it is formed in space. That position is one which has been uniquely arranged for in my calculations. Called 'conjugate image' it is really the same point with similar properties which is employed to a great extent in 'afocal' optical instruments, including microscopes and astronomical telescopes having converging mirrors or lenses.

"To simplify my explanations and to keep to visual expressions, I shall say that everything occurs as though the eye of the viewer were transposed to the position at which its conjugate image arrives. Everything, then, that is 'seen' by the image of the eye is therefore perceived by the eye itself, as it is depicted via the spherical mirror."

That is the essence of Dodin's principle, and if the reader has understood so far, then he will easily follow the rest of the explanation.

"It should be noted first," Dodin continued, "that, considering the direction of issue of the rays, the path—eye-real-image—is turned around so its back is to the screen and faces in the direction of the arrow in Fig. 1. With correcting prismatic lenses we could use this artificial eye as it is, by placing the secondary screen of the system below the main floor of the theatre, and this may be the arrangement that will be chosen ultimately. During my experiments, I have not used exactly this arrangement, but have preferred mirrors rather than prisms. Using these, the viewing path is changed by a simple alteration of the slope and not by altering the angle of the glass. Thus it is possible to use the same mirror for all auditorium positions. The use of prisms, on the other hand, would make it necessary to have special prisms made for each theatre installation.

"I therefore place over the real-eye-image a mirror which, in a way, will allow me to make it 'squint' as I will, without in the least inconveniencing the viewer. In early experiments there was some question as to where to locate the intermediate screen. The usual position is that now occupied by the spheric mirror screen. It must therefore be located either above or below. In my earlier experiments I placed it below. In my present explorations, I have placed it above, under the theatre roofing, as shown at E in Fig. 2.

"The projector should be in line with the auditorium; or if this is not feasible, then it should be set up in either of the two positions shown at L and L′, in Fig. 2. This projector successively and alternately projects the pictures of the stereoscopic pairs.

"With the intermediate screen located as described above, it is too far outside the direct line of vision to be awkward. Without wishing to complicate this explanation, I would say further that it is advantageous, for technical construction reasons, to give a slight convergence to the eye-real-image arrangement. This may be done by means of a weak lens, or even simpler by a slight concave

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B&H Soundstriping Available In Hollywood

The expansion of Bell & Howell's magnetic film striping service to its Hollywood plant was announced July 1st by Carl Schreyer, Vice-President in Charge of Merchandising. The company's Soundstripe process prepares 16mm film for magnetic sound recording.

The extension of this service to the Hollywood plant will speed service to West Coast users of Soundstripe film, as well as increase total production to meet the growing demand by users of magnetic recording projectors, Schreyer said. Previously this service was available only from the company's main Chicago plant.

The cost of Soundstripe to movie makers is 3½¢ per film foot for either full or half track. Film may be mailed to Bell & Howell at 716 North LaBrea, Hollywood or 7100 McCormick Road, Chicago.

The company's Soundstripe method of applying a magnetic coating to film was introduced February 25th of this year at the same time its Filmosound 202 optical-magnetic recording projector was announced. Single perforated 16mm film, striped after processing, is then ready for the recording of a magnetic sound track. Voice and music are added as the film is projected on the screen. The new system of recording sound on film is economical and requires no special equipment other than a magnetic recording projector.

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curving of the small mirror in the system. A curve similar to that of the principle mirror-screen is quite suitable.

"The directive mirrors controlling the view of the real images towards the secondary screen are shown at R, R′, R″, R‴, etc., in Fig. 2. These inclined mirrors are each surrounded by a rotating cylinder perforated to perform exactly as with shuttered spectacles, giving the correct picture aspect from each stereo pair of pictures.

"So far, I have discussed only one eye viewpoint of the spectator. Let us now see where the other eye comes in. The spherical screen will form an image of it which will come at the side of the first. This second image is treated as the first, by placing over it a second small mirror, identical to the other. Thus, the conditions that apply to the second eye-viewpoint apply also for the positions of all the other viewers in the theatre, one beside the other, in the same order, with the same success.

In chosing between the two workable methods — prisms or mirror, or shuttered devices — my preference is for the shuttered process, because it requires only one screen, whereas deflecting the beam would demand two; and besides being more difficult to install, would also introduce serious problems of distortion. Possibly the deflecting process would be simpler, since a simple varia-

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tion of the inclination of the mirrors would enable each eye to be directed on the appropriate screen. It should be noted that if our natural eyes cannot 'squint' up and down, nothing prevents this artificial strabismus in the case of the eyes-real-image. Here it is not convenience so much that we must seek as efficiency.

"The motion picture industry is fast approaching the goal of the *Complete Cinema*. We have pictures in motion, with sound, and more lately, in color. All that remains is movies in relief or third-dimension."

With Dodin's system, cost of production of stereofilms will be little changed from that of conventional films. It is the exhibitor on whom will fall the burden of expense for the installation of the special screen and projection facilities; but if the problem of spectacles for viewers is the chief obstacle in the path of practical theatre exhibition of 3-dimension films, then it would seem that the exhibitor will ultimately go along with the change, as he did with the advent of talking pictures. END

STEP UP IN CLASS

(Continued from Page 304)

your own judgment? There are times when each is best. The computers and information in this guide will help you approach the problem under a wide variety of lighting conditions and subject situations."

Perhaps the most interesting page in this section is that devoted to exposure of unusual subjects outdoors. Here the amateur finds the correct exposure to use when shooting such subjects as rainbows, beach and snow scenes, rainstorms and blizzards, waterfalls or big waves, night fireworks, neon and other electrical signs, and campfires. These are subjects which invariably stump every cine amateur until he has found the answer by trial and error. Now, the extravagance of trial and error procedure is no longer necessary. The right answers are in the Kodak Cine Photoguide.

Other pages give concise, fool-proof data on lighting movies indoors; indoor lighting for black-and-white film; exposure for unusual subjects indoors; film and filter data; and exposure indexes for Cine Kodak film.

For the first time perhaps pointers for making movies interesting have been carefully prepared and included in a handbook. It is the first time also that a dial-type guide has been supplied the amateur that shows at a glance just how to organize a movie story. Kodak's remarkable Movie Organizer dial comprises page 19 in the booklet and makes it easy for the amateur to "edit" his movies in the camera as he shoots.

Variety is an essential ingerdient in interesting movies, the booklet points out. It is actually a by-product of making each of your shots with a specific purpose in mind. It can be increased by changing your viewing angle. Basic movie shots, it is pointed out, are like a newspaper reporter's first questions: *"Who, What, Where?"*

The Kodak Home Movie Organizer provides a simple formula for the amateur's first organized movies. It can be used profitably by both seasoned and beginning amateurs to make scenarios; it can be consulted before making each shot.

This Movie Organizer has to be seen to be appreciated, but the reader may be able to visualize it—and estimate its usefulness—by thinking of a typical Kodaguide dial-type calculator. At the top are listed the basic movie and interest-building shots which, in effect, say that this is *where* things are happening, this is *what* is taking place, this is *who* is involved, this is *why* this occurred, and this is what has been happening *meanwhile*.

By setting the Kodak Movie Organizer dial pointer at any one of these settings, you can see at a glance, the length of time such a scene should ordinarily run and how far you should stand from your subject. You can also read from the organizer the gist of what such a shot would show. The procedure is clearly explained and illustrated by photos on the facing lage.

The final section—about lenses—is intended to help the more advanced home movie maker. This provides data on such subjects as interchangeable lenses and the field they cover; a depth-of-field computer; how to make extreme

---

Briefing In Cinema Optics

CARL L. BAUSCH, vice-president in charge of engineering and development at Bausch & Lomb Optical Co., Rochester, N.Y., explains workings of the famous Baltar lens to movie stars Ann Gwynn (left), Sterling Hayden, and Vera-Ellen.

THREE HOLLYWOOD stars touring the country with the Movietime USA Caravan got a first-hand glimpse of the company which has played an important role in the growth of the movie industry.

Vera-Ellen, dancing star of Metro-Goldwyn-Mayer studios, Sterling Hayden, leading man of Paramount Pictures, and Anne Gwynn, red-headed star of Monogram-Allied Artists, visited the Bausch & Lomb Optical Co. in Rochester, N.Y. recently as part of their tour on behalf of the Golden Jubilee celebration of the movie industry.

The popular screenland trio examined the famous Baltar lenses which are used to film 85 per cent of Hollywood movies, the Super Cinephor projection lenses which are used in leading movie houses across the country, and the optical sound systems with which professional projectors are equipped.

close-ups and close-up view-finding; close-up field sizes for 8mm and 16mm cameras with various lenses; data on Portra Lenses for extreme close-ups; information on the use of the Kodak Pola-Screen and filters; and an effective aperture computer.

The final contribution the Kodak Cine Photoguide makes to better movie making is to provide a check-list of points to remember if you want to produce the best possible movies. This contains such down-to-earth advice to filmers as: "get action in your films," "think 'story' not pictures," "have a reason for each shot," "panoram sparingly," and "break-up long actions."

You can get your copy of the new Kodak Cine Photoguide from any Kodak dealer. Price is $1.75 per copy.

FILTERS

(Continued from Page 296)

requires changing the established lens aperture, opening it up to compensate for the light absorbed by the filter. How *much* to open the lens in each case is knowledge which every cameraman must possess or have ready access to; for convenience, this information is set down in charts or tables in handbooks for most of the commonly used filters. As a key to arriving at the exposure differential when a filter is used, filter factors have been established for most all popular filters.

As filters must absorb part of the light if they are to be useful, it is usually necessary to take this into account and compensate for it by a corresponding increase in exposure. The number by which the exposure must be multiplied in order to do this is the *filter factor*. Manufacturers supply these with their filters, and their values are sufficiently accurate for all ordinary purposes. In color work, however, they may need correction. The factor depends not only on the transmission of the filter itself, but also upon the color sensitivity of the film that is to be used and the spectral quality of the light. These factors may be determined under the precise conditions required by photographing a gray scale both with and without the filter. The ratio of the exposures required to make these match step by step will be the filter factor.[1]

In black-and-white photography, filters are commonly used to obtain the greatest contrast between subject and background. It is therefore necessary for the cameraman to know which filters will lighten or darken certain colors. The most commonly used filters have names or numbers to identify

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On set with
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"The Twonky"

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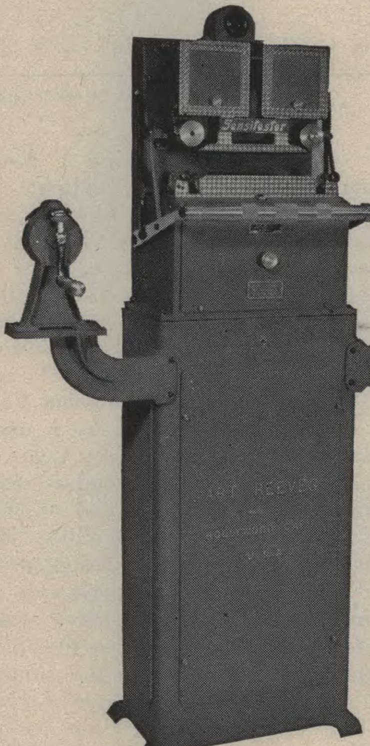

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them, such as "Aero 1" or "15" or "23-A," etc. To the professional cinematographer such reference numbers readily identify the filters and indicate the type of correction they give.

Yellow filters include Aero-1 (light yellow), Aero-2, and 12-minus Blue-yellow. This series is useful mostly for eliminating haze, putting slight emphasis on clouds, and to produce medium contrast. In addition there is the 15-G deep yellow filter which gives full color correction with pan films, is mostly used for open landscapes.

Orange filters include the No. 21 and the 23-A orange-red. The first gives light over-correction for all types of pan films, and is good for mountain and aerial work. Like the yellow series, these filters also penetrate haze.

Red Filters are for heavy over-correction — deep blue-black skies and fleecy clouds, etc., and are sometimes used with infra-fed films. The 25-A is used to create dramatic night effects in daylight. The 29-F deep red filter gives extreme over-correction and is used for full night effects in strong sunlight with pan film.

In the *blue filter* series are the 35-D (magneta), the 47-C5, and the 49-C4. The first is a contrast filter, moderately stable, and transmitting both red and blue. The 47-C5 is generally used with ortho films to increase blue contrast, also in combination with other filters for special rendition of color with color films. The last named is an experimental tri-color filter, generally used as a viewing filter for arc and daylight illumination.

Green filters include the X-1, X-2, 56-B3, and 58-B2. These filters generally impart a slight to strong softening effect and good correction for all types of panchromatic films.

Yellow filters consist of the 3-N5 (yellow-green) and the 5-N5 (yellow-green). The first is a combination of Aero-1 and 50% neutral density, offering slight color correction for landscapes, street scenes, etc. The latter is a combination Aero-2 and 50% ND, gives normal color correction for snow and beach scenes, and pleasing values in normal open water scenes.

Extreme over-correction and contrast in all blue and green colors, such as sky and foliage is accomplished with use of the No. 70 and 72 deep red filters. These are used for heavy night effects in strong sunlight, aerial shots, etc.

The *neutral density* filters are available in five contrasts — 25%, 50%, 75%, 100% and 200%. Neutral density filters are neutral in their action on all colors. They provide means of reducing light transmission through the lens, necessitating opening the diaphragm, and this results in some softening effect similar in action to neutralizing contrast.

There are a number of special filters for use with various color films, many of which are as yet uncatalogued. Except for Ansco Color, and the new Warnercolor process, and those filters which are used with Technicolor Monopack film, the only other important color-film filters which the cinematographer will have occasion to use are those established for 16mm Kodachrome and Ansco Color films. These films are now being widely used in the production of industrial and television films, and in the photography of travel films intended for blow-up to 35mm for theatre release.

Daylight Type Kodachrome film is balanced for exposure in sunlight, plus skylight. For bluish light conditions, and scenes taken in shade under a clear sky, a Kodachrome Haze filter is recommended with no increase in exposure. Color rendering can be made warmer with this film through the use of the Kodak CC14 or CC15 filters. The first requires an exposure increase of ¼ to ½ stop; the latter, from ½ to ¾ stop increase.

Kodachrome Type A film for artificial light can also be used with daylight illumination by using a Kodachrome Type A filter for daylight.

Ansco Color daylight film has approximately the same color balance as Kodachrome Daylight Type. Used in the same light conditions as described above for Kodachrome Daylight film, the Ansco Color UV-16 filter is recommended. The Ansco Color UV-17 and UV-18 correspond to the Kodak CC14 and CC15, and may be used under similar conditions with Ansco Color.

In the case of those studios using 35mm Ansco Color films and of Warners, with its new Warnercolor film, special filters have been designed for these color emulsions. Experiments are continuing in an effort to arrive at still better filters, and in each case the studio recommends and provides the cameraman with the filters necessary for use with the respective color films for the given exposure condition.

Because filters are used in making nearly every exterior shot with black-and-white film, the men who photograph "westerns" and other motion pictures with substantial outdoor sets have, perhaps, the widest experience in the use of filters. Without them, outdoor scenes would be flat; skies would be washed out or dull grey, and contrasts between players and other objects against bright skies would be too great for acceptable pictorial quality. For this reason, filters in the yellow, orange or red series are invariably used in filming every exterior scene for such pictures.

More recently, filters have played an important part in the photography of commercial or "spot announcement" films for television, where such films picture a sponsor's product in close-ups. Where the label on a product contains a number of colors, careful filtering is necessary in order to photograph it so that it will reproduce on television receivers in anything like its normal appearance.

To secure the greatest contrast between subject and background, when panchromatic film is used in shooting TV commercials or inserts for future films, the proper filter must be used. The table below indicates the effect of certain filters on various colors when photographed in daylight or equivalent illumination.

SUBJECT COLOR	TO MAKE LIGHTER	TO MAKE DARKER
RED	15, 21, 23-A, 25-A, 29-F	X1, X2, 56B, 47, C5
MAGENTA	35D, 23-A, 25-A, 29F	56B, 47-C5
BLUE	47-C5	15G, 21, 23A, 25A, 29F
BLUE-GREEN	47-C5, X2, 56B	23A, 25A, 29F
GREEN	X1, X2, 56B, 58B, 15G	25A, 29F
YELLOW	15G, 21, 23A, 25A, 58B	47-C5
ORANGE	15G, 21, 23A, 25A	47-C5
PURPLE	47-C5, 35D	56B
PINK	35D, 23A, 29F	56B, 47-C5

SHOWING filters to use to make colors lighter or darker.

Filters continue to be made in two types — glass with the color ground in or sandwiched between two discs or squares of optical glass, or in gelatin sheets or squares.

Gelatin filters are extremely fragile and must be handled with utmost care; they should be kept flat and dry when not in use and away from heat or direct sunlight.

Glass cemented filters should be treated with the same care and handling as a fine lens. They should never be washed with water. When cleaning is necessary, a soft cloth moistened with lens cleaning fluid should be used. In no case should the fluid contact the cemented edge of the filter. If not protected from heat and dampness, cemented filters will swell and separate.[2]

To summarize, filters do not add to the colors that pass through them in any way. Instead, they absorb some and transmit the rest. Filters make it possible to photograph only selective parts of the spectrum. Often the purpose for filters is to render tones of colored objects as they appear to the eye. At other times, the purpose is to increase contrast. And finally, with ND filters, to reduce the amount rather than the quality of the light passing through the lens to the film. In any case, the object is to improve the pictorial rendering of scenes, and for this a complete knowledge of filter lore is essential.

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[1] An Introduction To The Science Of Photography, by, Katherine Chamberlain. (MacMillan)

[2] American Cinematographer Handbook, by Jackson J. Rose.

KANGAROO

(Continued from Page 293)

street scenes were filmed in this same way.

By sending the electrical crew ahead to string cables and place the lamps for the scenes that were to be filmed in the evening, we would shoot day scenes in other locations to make up a full day's shooting schedule. Meanwhile, our prop man was buying or renting furniture in Adelaide for use in the distant ranch house location. When we had finished shooting in Sydney, trucks were hired to transport our equipment some 1200 miles across the country to Port Augusta. Because of the great distance and the condition of the roads, this involved a week of travel. We eventually moved into our new housing project which immediately became known as "Zanuckville."

With most of the interiors out of the way, we were now to begin shooting the vast number of exteriors on the ranch location. Here, it seemed to me, the general treatment of "Kangaroo" indicated a straightforward documentary style. My aim was to present the natural settings as realistically as possible, and to recreate those specially staged without the use of "arty" embellishments.

While color film has a tendency to glamorize nature, nevertheless it can be used as a powerful means to delineate some of its more primitive aspects. Thus, when we discovered that dust was to be with us whenever the earth's surface was touched, we deliberately made use of its pictorial aspect; in shooting scenes of the animal herds we frequently chose camera angles to take advantage of the dust effects rather than for the direction of the light.

This brings to mind that when laying

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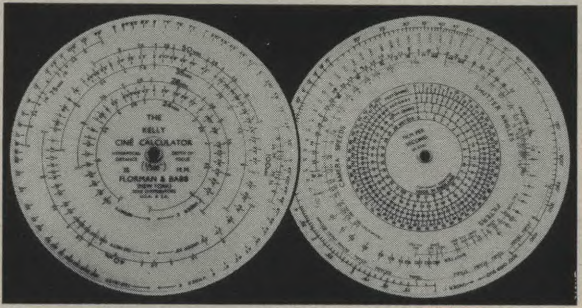

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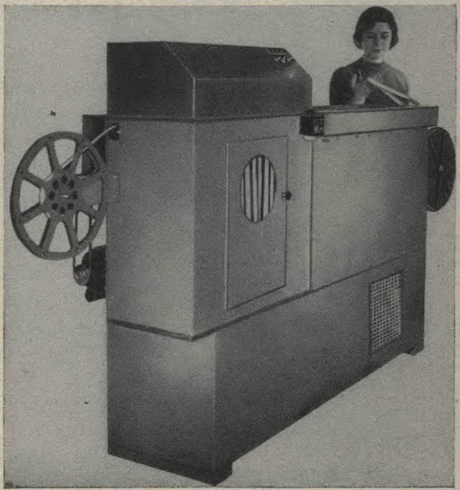

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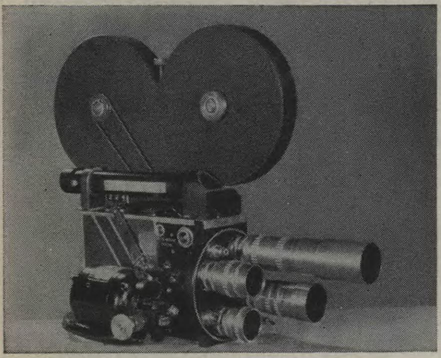

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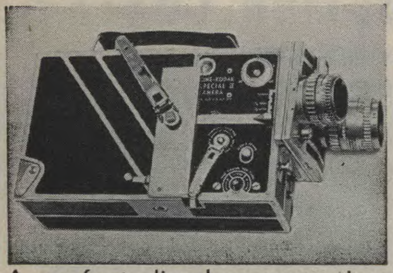

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out the camera setups with relation to the light, I had to reverse the plan used in the northern hemisphere. Here we were about 33 degrees *south* of the Equator, and at mid-day the sun is in the north. As location sites were selected long before construction was started, I used a compass in order to be certain the angles chosen would permit us the maximum hours of daylight for photography.

We had a "night camp" sequence to be filmed in the open country. Ordinarily for economic reasons as well as others, I shoot this type of scene when overcast weather precludes filming normal day scenes. In this way we lose no shooting time, and the reduced daylight enables camp or lamp light effects to photograph more realistically. However this time we were in for it. The weather would bank in, but before we could get the camp set up it would clear or get so dark, balancing was impossible. As a result, scenes for the night camp sequence in the picture were photographed at various times and after many attempts over a period of two months, and in four separate locations! To this day if some joker yells out "night camp!" terror strikes my heart.

The windmill sequence was staged on gusty days, for we were short on wind machines. A tall tower had been built for the long shots and a very short one for the close-up action that transpired on the top of the tower. Here the hand held Eclair Camerette camera become invaluable. Lying on the ground, I shot almost straight up to obtain the illusion of height and enhance the aspect of danger. For most of the production we used the Twentieth Century camera whenever sound was used. Mitchells were used at other times, especially on the stampede scenes. Because of the terrific dust, these cameras took an awful beating. It was a wise provision that we brought along a camera maintenance mechanic who cleaned and checked the cameras each night. In my many years of cinematographic experience, this location put the cameras to the most severe tests that I have ever known. That no scenes were lost due to camera failure or negative defects speaks well for the camera crew on this production.

An unusual natural condition of the country frequently gives clouds a distinctive hue. The vast desert area is largely devoid of vegetation. The coloring of the earth is quite red, and under certain light conditions the undersides of clouds reflect the ground color to create an unusual pictorial effect. Wherever I have photographed about this world, local photographers invariably tell me of the mystic or unusual light conditions of their respective localities. I have not found that such conditions were unusual when the latitude, surrounding coloring, and cloud conditions are taken into consideration. However I did notice a peculiarity in the light value in the arid region of Australia. Quite often weird-shaped, extremely high ciris clouds prevailed, indicating by their prismatic light an unusual ice content. They were estimated to be at an altitude of around 40,000 feet and although occupying very small areas of the otherwise clear sky, the increase in light intensity they created was considerable.

Our color film was processed in Hollywood, and being of the reversal type it had to be exposed within a very narrow exposure range. It was weeks before I had any reports back after exposure in the camera. As the emulsion and speed characteristics of Monopack and Kodachrome are similar, I used my 16mm camera with the later film for periodical exposure reference shots. I had this film processed in Melbourne. The Eastman Kodak people there were very accommodating to see that I received as prompt service as possible.

Anticipating that our interior scenes would be taken in natural locations, with the vistas seen through the windows and doors, we had brought along some plastic filter materials to bring the natural daylight into photographic balance with the interiors. These Plexiglass sheets having a transmission factor of about 46%, were purchased in a neutral grey color. By using a light blue filter in combination with the neutral densities I could approximate what is accepted for a night exterior illusion. These large sheets of filter material were placed over the windows on the outside, and we used them over and over again. My only criticism of this material is that it comes with a protective paper covering adhering to both surfaces similar to old fashioned fly-paper. This can be peeled off, but we found that the adhesive was a natural attraction for the fine dust that was ever about, and we couldn't find a solvent for removing it without scratching the plastic. The densities therefore became more dense! Using these and other similar expedients enabled us to obtain the most realistic photography for "Kangaroo," and did much to give the film authenticity.

While kangaroos have little to do with the story, no film about Australia is complete without one. They are Australia. We did have some amusing experiences in getting the scenes with them that we did. Kangaroos are very timid animals and when wild, scatter in all directions at the sound or scent of man. Our management kept in touch with local station owners and many were helpful in reporting promptly when bands would come in for water. Huge corrals were erected to trap them and my camera crew, under Lou Kunkle the operator, would take off to photograph them. Most outlying stations had at least one pet kangaroo about the place, enabling us to borrow a few for the porch scenes.

I found the many strange animals of this exotic country the highlight of the trip. The lovable koala bears and childlike wombats make everyone want to possess one. The bizzare reptiles and fantastic birds are things out of the prehistoric past. The shy kangaroo and his various cousins of different sizes (there is even a tree climbing species) are found only in this mystic land. The unbelieveable platypus and spiny ant eater are so fantastic they challenge one's credulity.

The fairyland that lies in the shoals of the Great Barrier Reef is of another world. Unfortunately there was no place for the latter in our film. We did manage to work in some of the aborigines — those strange human relics of the stone age. What an odd race! Spindly and slight, they can traverse hundreds of miles of the most desolate country that mind can conjure. Somehow they manage to live successfully in that part of the country no one else wants. With permission of the Government, a small band of these people was brought to our location to stage their tribal "Rain Corroboree." They camped in the trees near the location, and we furnished their food. They soon got so fat that we had to move up their shooting schedule. Their language sounds like one that Biblical tribes must have conversed in. We found them lovable, and when treated like children, responsive to our requirements. Though chocolate colored and hairy, their children are blonds when born. They like English pipe tobacco.

Photographing "Kangaroo" was indeed an experience of a lifetime. If this picture brings to world audiences some understanding of strange Australia, that fabulous land "down under," then our work in making it will not have been in vain.

TV Film Processing For Conventions

As a special service for television stations and news services planning to make 16mm movies as part of their television coverage of the Republican and Democratic conventions in Chicago, the Eastman Kodak Company will provide rapid processing facilities for 16mm Eastman film at its Chicago processing laboratory, 1712 Prairie Ave.

To give priority to such films, the lab will remain open over the weekends. There will be no extra charge for the special service during the conventions.

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Current Assignments of A.S.C. Members

Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month.

★ ★ ★ ★

Allied Artists

- Ernest Miller, "Battle Zone," with John Hodiak, Linda Christian, Stephen McNally, Philip Ahn. Lesley Selander, director.
- William Sickner, "Down Periscope," (Lindsley Parsons Prod.) with Mark Stevens, Bill Williams, Dorothy Malone. Lew Landers, director.

Columbia

- Charles Lawton, "All Ashore," (Technicolor) with Mickey Rooney, Jody Lawrence, Dick Haymes. Richard Quine, director.
- Hal Mohr, "The Member Of The Wedding," (The Kramer Co.) with Ethel Waters, Julie Harris, Brandon de Wilde. Fred Zinneman, director.
- William Bradford, "Winning Of The West," (Gene Autry Prod.) with Gene Autry, Smiley Burnette, Gail Davis. George Archainbaud, director.
- Charles Lang, "Salome — The Dance of The Seven Veils," (Beckworth Prod.) (Technicolor), with Rita Hayworth, Stewart Granger, Charles Laughton. William Dieterle, director.

Metro-Goldwyn-Mayer

- Hal Rosson, "I Love Melvin," with Donald O'Connor, Debbie Reynolds, Dean Miller. Don Weis, director.
- William Mellor, "The Naked Spur," (Technicolor) with James Stewart, Robert Ryan and Janet Leigh. Anthony Mann, director
- John Alton, "Apache Trail," with Gilbert Roland, Barbara Ruick. Harold F. Kress, director.
- Charles Rosher, "The Story Of Three Loves," (Technicolor) with Kirk Douglas, Pier Angeli. Gottfried Reinhardt, director.
- Harold Lipstein, "The Desperate Search," with Howard Keel, Jane Greer, Patricia Medina. Joseph Lewis, director.
- Joseph Ruttenberg, "Small Town Girl," (Technicolor) with Jane Powell, Farley Granger, Ann Miller. Leslie Kardos, director.
- Ray June, "Sombrero," (Technicolor) with Pier Angeli, Ricardo Montalban, Vittorio Gassman, Cyd Charisse. Norman Foster, director.

Monogram

- Harry Neumann, "Hiawatha," (Cinecolor) with Vince Edwards, Yvette Dugay, Stephen Chase. Kurt Neumann, director.
- Ernest Miller, "Guns Along The Border," with Johnny Mack Brown, Phyllis Coates, Dennis Moore. Lewis Collins, director.
- Ernest Miller, "Hired Guns," with Whip Wilson, Phyllis Coates, House Peters, Jr., Stanford Jolley. Thomas Carr, director.

Paramount

- Daniel Fapp, "Pleasure Island," with Leo Genn, Don Taylor, Audrey Dalton. F. Hugh Herbert, director.
- Ernest Laszlo, "Scared Stiff," (Hal Wallis Prod.) with Dean Martin and Jerry Lewis. George Marshall, director.
- Lionel Lindon, "The Stars Are Shining," (Technicolor) with Anna Maria Alberghetti, Rosemary Clooney and Lauritz Melchoir. Norman Taurog, director.

AMERICAN SOCIETY OF CINEMATOGRAPHERS

FOUNDED January 8, 1919, The American Society of Cinematographers is composed of the leading directors of photography in the Hollywood motion picture studios. Its membership also includes nonresident cinematographers and cinematographers in foreign lands. Membership is by invitation only.

•

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- Frank Planer, "Roman Holiday," (Shooting in Rome, Italy), with Gregory Peck, Audrey Hepburn, and Eddie Albert. William Wyler, producer-director.
- Ray Rennahan, "Pony Express," (Technicolor) with Charlton Heston, Rhonda Fleming, Jan Sterling, Forrest Tucker. Jerry Hopper, director.

R.K.O.

- William Snyder, "Blackbeard The Pirate," (Edmund Grainger Prod.) with Linda Darnell, Robert Newton. Raoul Walsh, director.
- Harry Stradling, "The Murder," with Robert Mitchum, Jean Simmons, Mona Freeman, Herbert Marshall. Otto Preminger, producer-director.
- Nick Musuraca, "The Difference," (Filmakers), with Edmond O'Brien, Frank Lovejoy, Virginia Huston. Ida Lupino, director.

20th Century-Fox

- Arthur Arling, "The Farmer Takes A Wife," (Technicolor) with Betty Grable, Dale Robertson, Thelma Ritter. Henry Levin, director.
- Joseph MacDonald, "Niagara," (Technicolor) with Joseph Cotton, Jean Peters, Marilyn Monroe. Henry Hathaway, director.
- Leon Shamroy, "Tonight We Sing," (Technicolor) with Ezio Pinza, Roberta Peters, Tamara Toumanova. Mitchel Leisen, director.
- Edward Cronjager, "Powder River," with Rory Calhoun," Corinne Calvet, Cameron Mitchell. Louis King, director.

Universal-International

- Maury Gertsman, "The Great Companions," (Technicolor) with Dan Dailey, Diana Lynn, Chet Allen. Douglas Sirk, director.
- Winton Hoch, "Cattle Kate," (Technicolor) with Maureen O'Hara, Alex Nicol, Jeanne Cooper. Lee Sholem, director.
- Charles Boyle, "Roughshod," (Technicolor), with Audie Murphy, Susan Cabot, Paul Kelly. Nathan Juran, director.
- Irving Glassberg, "Mississippi Gambler," with Tyrone Power, Piper Laurie, Julia Adams, John McIntire. Rudolph Mate, director.
- Russell Metty, "Seminole," (Technicolor) with Rock Hudson, Barbara Hale, Anthony Quinn, Richard Carlson. Budd Boetticher, director.

Warner Brothers

- Edwin DuPar, "The Springfield Rifle," (Warner-Color) with Gary Cooper, Phyllis Thaxter. Andre DeToth, director.
- Archie Stout, "Big Jim McClain," (The Fifth Corp.) with John Wayne, Nancy Olson, Jim Arness. Edward Ludwig, director.
- Robert Burks, "The Desert Song," (Technicolor) with Kathryn Grayson, Gordon MacRae, Raymond Massey. Bruce Humberstone, director.
- Ted McCord, "Stop, You're Killing Me!" (Warnercolor) with Broderick Crawford, Claire Trevor. Roy Del Ruth, director.

Independent

- George Diskant, "Kansas City 1-1-7" (Assoc. Players & Prod.) with John Payne, Coleen Gray. Phil Karlson, director.
- Russell Harlan, "Ruby Gentry," (Bernhard-Vidor Prod.—20th-Fox.) with Jennifer Jones, Charlton Heston. King Vidor, director.
- Joseph Biroc, "Bwana Devil," (Arch Oboler Prods.) (Ansco Color) with Robert Stack, Barbara Britton, Nigel Bruce. Arch Oboler, director.
- Jack Russell, "The Velvet Cage," (Wisberg-Pollexfen Prods.) with Helen Walker, Rose Elliott, Susan Morrow. E. A. DuPont, director.
- Gilbert Warrenton, "Lost Women of Zarpa," (Howco Prods.) with Jackie Coogan, Chris-Pin Martin, Allan Nixon. Ron Ormond, director.

NOTE: Names of A.S.C. Directors of Photography who were engaged in the photography of films for television last month will be found in the "Television Production column" on page 299.

CARBON ARCS FOR MOVIE SET LIGHTING

(Continued from Page 294)

Characteristically, only a small portion of the lamp lens surface is effective in illuminating a single area in the beam when the lamp is adjusted for wide beam spreads; but when the lamp is set for narrow beam spreads, a larger portion of the lens surface becomes luminous. It follows, therefore, that when the lamp is adjusted for full flood, the shadows of objects placed at the same distance from the lamps will be sharper than when the lamp is adjusted for minimum spot.

The effective horizontal dimensions of the sources for the extremes of beam spread for each lamp were measured, as shown in Fig. 1 last month. These were determined both visually and by recording the intensity across the shadow of an opaque straight edge. Photometrically, effective source sizes were based upon the width of shadow between the points at which the light intensity was 10% and 90% of the unshadowed intensity.

The source sizes so determined were found to be smaller than those visually observed (Fig. 1, May issue) and are believed to be a better measure of shadow sharpness. The edges of the luminous spot on the lens surface are not sharply defined, the light tapering downward over a band width which is difficult to define with the eye alone.

Thus, although the entire area of the Fresnel lens appears visually luminous at minimum spot, much of the outer surface area is of relatively low brightness and is essentially inneffective in contributing to shadow formation.

With the 150 foot-candle balanced film, the arc lamps produce up to 55% sharper shadows than the inkies at minimum spot, and as much as three-fold sharper shadows at 45° flood. Because of heavy filtering and close projection distances necessary to get required intensities, both daylight films result in pronounced poorer sharpness of shadows with inkies (larger source sizes).

Figure 3 (in May issue) shows that *all* carbon arc lamps at *all* conditions produce a shadow sharpness essentially equivalent to or sharper than the sun. As previously indicated, much sharper shadows are produced at full flood than at minimum spot. The small source size and the high brightness of the carbon arcs enable them to produce *useful* intensities of radiation with a shadow sharpness surpassing that obtained from the sun and from other studio lighting sources.

Thermopile measurements of the total radiant energy from the carbon arcs show that the unfiltered lamps have a luminous efficiency of approximately 75 to 100 lumens per watt in the beam. Similar measurements using a gelatin filter combination with one MT-1 and two Y-1 filters resulted in approximately 50% loss in visual candlepower, but correspondingly reduced the total radiant energy, so that there was only a 10 to 20% loss in luminous efficiency. This filter combination is the one presently used with Carbon arcs and 3350° K. film.

Inkie tungsten lamps used for studio lighting are reported to have a luminous efficiency of 35-40 lumens per watt. With or without the gelatin filter combination on the arcs, the luminous efficiency of carbon arc lamps is thus at least twice that with tungsten to give half the heat for the same light intensity. This explains the much greater coolness conventionally associated with carbon arc light, and indicates that this advantage is maintained with the gelatin filter combinations and the new color films.

It is interesting to note that the carbon arc lamp approaches the sun in luminous efficiency as well as in color quality, the solar efficiency being approximately 100 lumens per watt.

The small source size, high brightness and high unit power of the carbon arcs make possible their outstanding superioity in penetrating power, covering power and shadow sharpness, compared to other available light sources. The daylight quality of the light is responsible for the coolness of the radiation and permits ready interchangeability with daylight in color photography.

The foregoing article is reprinted by permission from the December, 1951, issue of "International Projectionist."—EDITOR

Telescopic Spotlight For Filming Dances

To ENHANCE the photography of intricate dance routines, director of photography Arthur Arling, A.S.C., is using a newly perfected telescopic fill-in spotlight in shooting Betty Grable's big production numbers in 20th Century-Fox's "The Farmer Takes A Wife."

The new lamp, designed by the Fox electrical department, focuses high-intensity illumination in a concentrated spot of varying diameters exactly where needed with a minimum of adjustment. Lamp gives additional scope and power to carbon arcs for special set lighting problems.

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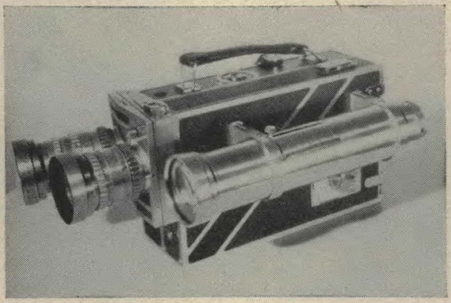
Zoom Type Finder—Camera Equipment Company, 1600 Broadway, New York, N.Y., announces a new zoom type finder for the Eastman Cine-Kodak Special Models I and II. Finder will zoom from 15mm field to 152mm. A parallax compensating peep-sight eyepiece is incorporated into the viewing end of the tube, with parallax positions calibrated.

When using the 15mm field, the front element adaptor lens is removed from the finder; but for all other lens fields from 25mm to 152mm, the front element lens adaptor remains in regular position on the tube.

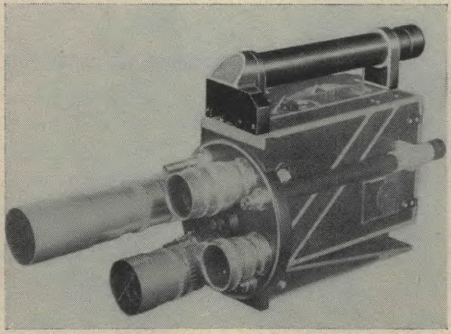


Brackets for mounting the finder on door of either the 100-ft. or 200-ft. magazines are supplied with unit, as is a template for mounting the brackets.

An additional feature is a traveling or sliding matt which does away with the need for inserting individual mats for each lens used on the camera.

Price of the zoom type finder is $75.00 FOB New York City.

Reflex Finder Magnifier—Par Products Corp., 926 No. Citrus Ave., Hollywood 38, Calif., offers a reflex finder magnifier for the Eastman Cine-Kodak Special camera with the following features: Dual-power—7x for composing, 15x for critical focusing; offset to allow use of either 100-, 200- or 400-foot film magazine; magnifier may be used as handle for carrying camera without affecting its accuracy; image is erect and corrected from right to left and variable magnification 5x to 20x at small additional charge.

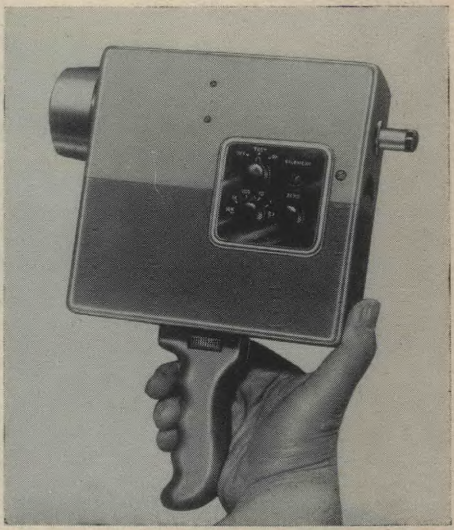


The magnifier is rigidly attached to the camera, although easily and quickly removable.

For further data and price, write direct to manufacturer.

Spectra Brightness Spot Meter—Photo Research Corp., 127 West Alameda Ave., Burbank, Calif., announces the new Spectra Brightness Spot Meter designed to measure the brightness of a very small area at any distance from four feet to infinity.

Instrument, employing vacuum photocell, amplifier and microameter, gives readings with infinite accuracy, and is completely independent of the variable sensitivity of the observer's eye. Any user will obtain the same reading of a given area.



The Spectra Brightness Spotmeter is recommended for use in set lighting for motion pictures and television and as an aid for illumination engineers.

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(Continued on Page 322)

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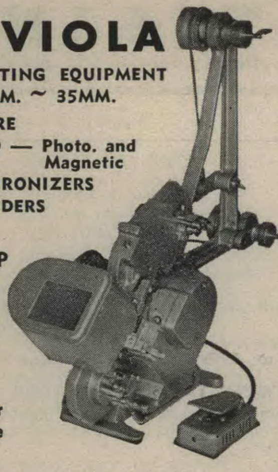

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WHAT'S NEW

(Continued from Page 320)

mal reproducing head. On playback, this signal is used to compensate for speed errors due to tape stretch and slipping.

Automatic Positive Control from camera to screen is offered in the excellent line of motion picture production equipment offered by Houston-Fearless Corp., Los Angeles. Motion picture producers, laboratories, and television film companies are invited by the company to write for complete information on Houston-Fearless film developing machines, color printers, friction heads, color developers, camera dollies and tripods, camera cranes, and film printers.

Also, company specializes in the design and construction of such equipment to meet specific needs.

Write the company at 11809 West Olympic Blvd., Los Angeles 64, Calif.

BULLETIN BOARD

(Continued from Page 282)

gram for his photography of "I Want You," photographed on DuPont motion picture film.

•

ROLF G. JOAQUIN, Argentina film producer and equipment manufacturer is in Hollywood surveying motion picture production methods, and seeking television markets for his South American films.

○

RAY RENNAHAN, A.S.C., celebrated his 35th year as a director of photography and 30th year as a color cinematographer with his assignment last month as Technicolor cameraman on Nat Holt's "Pony Express for Paramount Pictures.

TV FILM PRODUCTION

(Continued from Page 299)

studio's contractees, except Rita Hayworth, are available for roles in the Ford series."

Other major studios, watching the rapidly changing TV film picture in Hollywood, have announced no definite plans or committments, but undoubtedly have definite plans in the making.

Twentieth Century-Fox's Darryl Zanuck was quoted as saying his studio has no TV film plans at present. He denied reports, circulated during his absence in Europe, that Fox has established an outside unit for making TV films.

A major straw in the wind was the major studios' huddles with music czar Petrillo middle of June for purpose of coming to terms on royalty payments for music used in TV films.

•

Some indication of the TV film production potential, which has caused the major studios to consider making video films, is the fact that television stations in the Los Angeles area alone are now showing *old* motion pictures at the rate of about 120 weekly—6000 a year—said to be the highest TV film programming in the country.

•

For the cinematographer, presently free lancing or not on contract, this can only mean a rosy future in a new and interesting field of activity.

○

Elmer Dyer, A.S.C., has been signed to photograph an additional series of thirteen half-hour "Craig Kennedy" video films for Adrian Weiss. Production headquarters are at Key West Studios, on Santa Monica Blvd.

○

Phil Tannura, A.S.C., started shooting the initial series of Burns and Allen half-hour comedy films at General Service Studios. New series, for CBS-TV, are produced by Ralph Levy. Al Simon, formerly with Desilu, is associate producer.

•

Karl Freund, A.S.C., following layoff from the "I Love Lucy" show, began shooting the "Our Miss Brooks" TV series at General Service Studios for Desilu Productions. Freund will again photograph the "I Love Lucy" show, when it resumes in the fall.

○

James Van Trees, A.S.C., who shoots the "Groucho Marx" TV show, will photograph pilot films for two new TV series this coming month for Filmcraft Productions. The first will star Chico Marx, with Florence Bates essaying the feature role in the second. Shooting will be done at NBC in Hollywood.

REVIEWS

(Continued from Page 285)

wardrobe and makeup departments to diminish the stature of Miss Blyth, a charming girl in her early twenties, in order to make her appear as an eleven-year-old girl. Here, the camera shoots from a moderately high angle down upon Miss Blyth. Later, as she grows into womanhood, the camera assumes a more conventional shooting position.

Technically, one of the most interesting sequence of shots are the night scenes of the home being moved.

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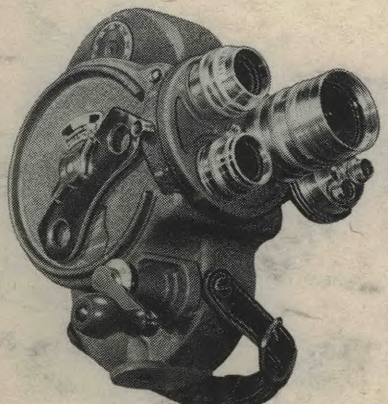

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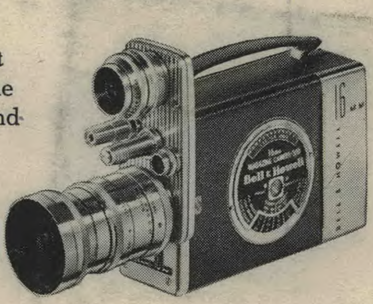

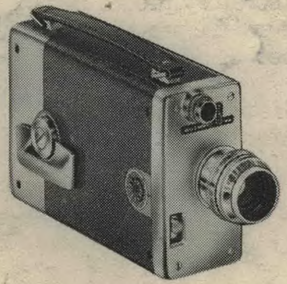

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